PB88-225255

Guidance for the Reregistration of Pesticide Products Containing Coal Tar/Creosote as the Active Ingredient

(U.S.) Environmental Protection Agency
Washington, DC

Apr 88

U.S. Department of Commerce
National Technical Information Service
NTIS

PB88-225255

United States
Environmental Protection
Agency

Office of
Pesticides and Toxic Substances
Washington DC 20460

540-RS-88-066

Pesticides

EPA

Guidance for the Reregistration of Pesticide Products Containing COAL TAR/CREOSOTE as the Active Ingredient

REPRODUCED BY
U.S. DEPARTMENT OF COMMERCE
National Technical Information Service
SPRINGFIELD, VA. 22161

50272-101

REPORT DOCUMENTATION PAGE

1. REPORT NO.

2.

3. Recipient's Accession No. PB88-225255/AS

4. Title and Subtitle
Guidance for the Reregistration of Pesticide Products Containing Coal Tar/Creosote as the Active Ingredient

5. Report Date April 1988

6.

7. Author(s)
EPA, Office of Pesticide Programs Registration Div.

8. Performing Organization Rept. No. 540/RS-88-066

9. Performing Organization Name and Address
U.S. Environmental Protection Agency
Office of Pesticide Programs
Registration Division TS-767C
401 M Street, S.W.
Washington, D.C. 20460

10. Project/Task/Work Unit No.

11. Contract(C) or Grant(G) No.
(C)
(G)

12. Sponsoring Organization Name and Address
Same as #9

13. Type of Report & Period Covered

14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This document contains information regarding the registration of pesticide products containing the subject active ingredient. The document includes how to register under a registration standard, regulatory position and rationale, and summaries of date requirements and data gaps. Also included is a bibliography containing citations of all studies reviewed by EPA in arriving at the positions and conclusions contained in the standard.

17. Document Analysis a. Descriptors

Pesticides, standards, regulations, manfacturing, chemistry, toxicology, residues, ecology, path of pollutants.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement: Publicly Available

19. Security Class (This Report) Unclassified

20. Security Class (This Page) Unclassified

21. No. of Pages 182

22. Price

(See ANSI-Z39.18) See Instructions on Reverse OPTIONAL FORM 272 (4-77) (Formerly NTIS-35) Department of Commerce

GUIDANCE FOR THE REREGISTRATION OF PESTICIDE PRODUCTS

CONTAINING

COAL TAR/CREOSOTE

AS THE ACTIVE INGREDIENT

EPA NUMBER 128935

CASE NUMBERS 639 AND 137

APRIL 1988

ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDE PROGRAMS

TABLE OF CONTENT

I. Introduction i

II. Chemical(s) Covered by this Standard 1
  A. Description of Chemicals
  B. Use Profile
  C. History of Use
  D. Regulatory History

III. Agency Assessment 4
  A. Preliminary Risk Assessment

IV. Regulatory Position and Rationale. 11
  A. Regulatory Positions
  B. Criteria for Registration
  C. Acceptable Ranges and Limits
  D. Required Labeling

V. Products Subject to this Standard 25

VI. Requirement for Submission of Generic Data 27
  A. What are generic data?
  B. Who must submit generic data?
  C. What generic data must be submitted?
  D. How to comply with DCI requirements
  E. Testing protocols, test standards and guidance
  F. Procedures for requesting a change in protocol
  G. Procedures for requesting extensions of time
  H. PR Notice 86-5 and any other requirements referenced or included within this Notice
  I. Existing stocks provisions upon suspension or cancellation

VII. Requirement for Submission of Product-Specific Data . . 33

VIII. Requirement for Submission of Revised Labeling 34

IX. Instructions for Submission. 34
  A. Manufacturing use products (sole active)
  B. Manufacturing use products (multiple active)
  C. End use products (sole active)
  D. End use products (multiple active)
  E. Intrastate products
  F. Addresses

APPENDICES

I. DATA APPENDICES

Guide to Tables

Table A

Table B

II. FEASIBILITY STUDY FORMAT

Attachment II - Creosote wood treatment plants

Attachment III - Sawmills and planing plants

III. LABELING APPENDICES

Summary of label requirements and table

40 CFR 162.10 Labeling Requirements

Physical/Chemical Hazards Labeling Statements

Storage Instructions

Container Disposal Instructions

Attachment IV-1 - AWPA Standards for coal tar/creosote

IV. USE INDEX APPENDIX

V. FORMS APPENDICES

EPA Form 8580-1	FIFRA §3(c)(2)(B) Summary Sheet
EPA Form 8580-6	Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data
EPA Form 8580-4	Product Specific Data Report
EPA Form 8570-27	Formulator's Exemption Statement

VI. BIBLIOGRAPHY APPENDIX

I. INTRODUCTION

EPA has established the Registration Standards program in order to provide an orderly mechanism by which pesticide products containing the same active ingredient can be reviewed and standards set for compliance with FIFRA. The standards are applicable to reregistration and future applications for registration of products containing the same active ingredient. Each registrant of a product containing an active ingredient subject to this Standard who wishes to continue to sell or distribute that product must bring his product and labeling into compliance with FIFRA, as instructed by this Standard. Pesticides have been grouped into use clusters and will be reviewed on the basis of a ranking scheme giving higher priority to (1) pesticides in clusters used on food and feed crops; and (2) pesticides produced in large volumes.

The Registration Standards program involves a thorough review of the scientific data base underlying a pesticide's registration. The purpose of the Agency's review is to reassess the potential hazards arising from the currently registered uses of the pesticide; to determine the need for additional data on health and environmental effects; and to determine whether the pesticide meets the "no unreasonable adverse effects" criteria of FIFRA. In its review EPA identifies:

1. Studies that are acceptable to support the data requirements for the currently registered uses of the pesticide.

2. Additional studies necessary to support continued registration. The additional studies may not have been required when the product was initially registered or may be needed to replace studies that are now considered inadequate.

3. Labeling revisions needed to ensure that the product is not misbranded and that the labeling is adequate to protect man and the environment.

The detailed scientific review, which is not contained in this document, but is available upon request[1], focuses on the pesticide active ingredient. The scientific review primarily discusses the Agency's evaluation of and conclusions from available data in its files pertaining to the pesticide coal tar/creosote. However, during the review of these data the Agency is also looking for potential hazards that may be associated with the end use products that contain the active ingredient. The Agency will apply the provisions of this Registration Standard to end use products if necessary to protect man and the environment.

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[1] The scientific reviews may be obtained from the Information Services Section, Program Management and Support Division (TS-757C), EPA, 401 M Street, SW., Washington, D.C. 20460.

EPA's reassessment results in the development of a regulatory position, contained in this Registration Standard, on the pesticide and each of its registered uses. See Section IV Regulatory Position and Rationale. Based on its regulatory position, the Agency may prescribe a variety of steps to be taken by registrants to maintain their registrations in compliance with FIFRA. These steps may include:

1. Submission of data in support of product registration;
2. Modification of product labels;
3. Modifications to the manufacturing process of the pesticide to reduce the levels of impurities or contaminants;
4. Restriction of the use of the pesticide to certified applicators or other specially trained individuals;
5. Modification of uses or formulation types; or
6. Specification of packaging limitations.

Failure to comply with these requirements may result in the issuance of a Notice of Intent to Cancel or a Notice of Intent to Suspend (in the case of failure to submit data).

In addition, in cases in which hazards to man or the environment are identified, the Agency may initiate a special review of the pesticide in accordance with 40 CFR Part 154 to examine in depth the risks and benefits of use of the pesticide. If the Agency determines that the risks of the pesticide's use outweigh the benefits of use, the Agency may propose additional regulatory actions, such as cancellation of uses of the pesticide which have been determined to cause unreasonable adverse effects on the environment.

EPA has authority under the Data Call-In (DCI) provisions of FIFRA sec. 3(c)(2)(B) to require that registrants submit data to answer Agency questions regarding the chemical, toxicological, and environmental characteristics and fate of a pesticide. This Registration Standard lists the data EPA believes are necessary to resolve its concerns about this pesticide. These data are listed in the Tables A, B, and C in Appendix I. Failure to comply with the DCI requirements enumerated in this Registration Standard may result in issuance by EPA of a Notice of Intent to Suspend the affected product registrations.

Registrants are reminded that FIFRA sec. 6(a)(2) requires them to submit factual information concerning possible unreasonable adverse effects of a pesticide at any time that they become aware of such information. Registrants must notify the Agency of any information, including interim or preliminary results of studies, if that information suggests possible adverse effects on man or the environment. This requirement is independent of the specific time requirements imposed by EPA for submission of completed studies called in by the Agency and continues as long as the products are registered under FIFRA.

II. CHEMICALS COVERED BY THIS STANDARD

A. Description of Chemicals

Current definition of ingredients. This Registration Standard covers coal tar/creosote products, including the following currently named ingredients (with EPA identifying numbers):

ASPHALT	(022001)	COAL TAR NEUTRAL OIL	(025001)
BITUMEN	(022002)	WOOD CREOSOTE	(025002)
COAL TAR	(022003)	CREOSOTE OIL	(025003)
TAR	(022004)	COAL TAR CREOSOTE	(025004)

Redefinition of coal tar/creosote "ingredients." The ingredients covered by this Registration Standard do not consist of single, specific chemicals, as do other pesticide ingredients. The names listed above are the ones traditionally used in the wood preserving industry; industry trade associations have set standards for these "ingredients" defined by physical characteristics, such as boiling point ranges and viscosity.

Because of the chemically complex mixture of materials in coal tar/creosote (See Chemical Composition, page II-2) the Agency will utilize eight standard products defined by the American Wood Preservers Association(AWPA) for testing purposes. The AWPA standards for these products are based upon physical properties and percentages of material from specific distillation ranges. Three of the AWPA standard products are coal tar distillate fractions designated as creosote (P1, P7, and P13) and five are solutions of coal tar and creosote in varying proportions (P2A, P2B, P2C, P2D, and P12). These products must conform to AWPA specifications. Industry-wide composites of the eight AWPA standard products will be developed by the registrants in consultation with EPA. These composites will be maintained by the registrants and will be utilized for all testing.

Manufacturing process. Coal tar and creosote are complex heterogeneous mixtures of chemicals derived from the fractional distillation of coal or wood tar. The actual chemical reactions occurring in the distillation process are not well understood.

Coal tar is the major part of the liquid condensate obtained from the "dry" distillation or carbonization of coal to coke. Creosote is the low boiling distillate fractions of coal tar/wood tar, and consists principally of liquid and solid aromatic hydrocarbons, with some tar acids and bases also present. It is heavier than water and has a continuous boiling range from about 200°C to about 450°C.

Chemical composition. The chemical composition of the coal tar/creosote distillate fractions is highly variable due to differences in the source and composition of raw materials (coal/wood) and manufacturing variables (temperature, coking time, gas collection, coke oven systems, and the design and operating parameters of the still).

Hundreds of individual chemicals have been identified in coal tar/creosote, although many of these may be present only in trace amounts. Lorenz and Gjovik (1972), and McNeil (1952) have identified eight classes of compounds commonly found in creosote and coal tar products. These are:

(1) Unsubstituted 6-membered rings
(2) Heterocyclic nitrogen bases
(3) Heterocyclic oxygen and sulfur compounds
(4) Alkyl substituted compounds
(5) Hydroxy compounds
(6) Aromatic amines
(7) Paraffins
(8) Naphthenes

Proportions of each of these classes can vary from batch to batch, even within formulations developed for a particular purpose.

B. Use Profile

Type of Pesticide	: Fungicide, insect (wood boring) repellent, bacteriocide
Pests Controlled	: Fungi, insects, bacteria, and marine borers
Registered Uses	: Wood preservative
Predominant Use	: Wood preservation
Method of Application	: Pressure treatment and non-pressure treatment; brush-on, spray-on, and dipping(soaking)
Mode of Activity	: Prevention of fungus and bacterial decay, insect repellent.
Formulations MP and EP	: AWPA standard products(concentrates or dilutions) may serve as MP's or EP's.

2

C. History of Use

Coal tar/creosote has been widely used as a wood preserving agent since the early 1900's. In 1975 approximately 238 million pounds of coal tar and 843 million pounds of creosote were used in the U.S. The major producers in 1985 included Koppers, Bethlehem Steel, Allied Chemical and Reilly Tar and Chemical Company.

D. Regulatory History

On October 18, 1978 (43 FR 48154), the Environmental Protection Agency initiated a Special Review [previously referred to as the Rebuttable Presumption against Registration (RPAR) Process] for wood preservative products containing creosote based on information indicating risks of mutagenicity and oncogenicity to humans. The Special Review was supported by Position Document No. 1 (PD 1).

In the Preliminary Determination concluding the Special Review, published on February 19, 1981 (46 FR 13020), the Agency reaffirmed its risk concerns and on July 13, 1984 (49 FR 28666), published a Notice of Intent to cancel the registration of wood preservative products containing creosote, which required certain label modifications to coal tar/creosote wood preservative products in order to avoid cancellation. Supporting documents for these actions are Position Document No. 2/3 (PD 2/3), dated January 1, 1981 and Position Document No. 4 (PD 4), dated July 13, 1984, respectively.

After considering alternative mechanisms suggested by registrants who requested a hearing in response to the July 13, 1984, notice, the Agency published an amended notice of intent to cancel registrations on January 10, 1986 (51 FR 1334). This notice made minor modifications to the requirements of the original notice and resolved the issues relating to the wood preservative use of coal tar/creosote.

In related actions published on October 16, 1985 (50 FR 41943), subject: "Intent to Cancel Registrations of Pesticide Products Containing Creosote and Coal Tar For Non-wood Preservative Uses" (except those for control of gypsy moth egg masses), and May 15, 1986, subject: "Notice to Registrants and Applicants Affected by the Notice of Intent to Cancel Non-Wood Preservative Creosote and Coal Tar Products", the Agency ultimately cancelled the registrations of all non-wood preservative uses of coal tar/creosote.

3

III. AGENCY ASSESSMENT

As part of the Special Review, the Agency has reviewed all data submitted to support the registration of coal tar/ creosote and the extensive body of data in the literature. These data, for the most part, were developed from specific formulations of coal tar, creosote and coal tar neutral oils as well as various unidentified formulations of these products. Because the individual constituents of these formulations are not identified, all available data are considered inadequate or invalid. However, evidence of potential environmental and human health risks from the formulations and their chemical constituents is substantial and is discussed in detail in PD 2/3 and PD 4. Complete bibliographic information on the sources cited in this Registration Standard may be found in the bibliography to PD 2/3 and PD 4.

A. PRELIMINARY RISK ASSESSMENT

1. Oncogenicity of coal tar/creosote. Based on qualitative evaluations, the Agency has concluded that exposure to coal tar/creosote formulations poses an oncogenic risk.

Two hundred years ago, scrotal cancer was observed in English chimney sweeps (Pott, 1775). Since that time, reports have confirmed cases of cancer in humans resulting from industrial exposure to coal tars (NIOSH, 1977). Shambaugh (1935) reported that fishermen who held tar-soaked needles in their mouths while mending tarred nets, developed lip cancer.

Substantial epidemiological evidence is available to show that exposure to coke oven emissions, which condense to form coal tars, gives rise in workers to an excess risk of death from lung cancer and cancers of the bladder, prostate, pancreas, and large intestine (CAG, 1978a).

In an analysis of a study of wood treatment plant workers (Tabershaw, 1979), significant increases in benign growths and pseudofolliculitis in the study population were observed. These eruptions occurred where clothing rubbed against the skin rather than in areas exposed to the sun, suggesting that the effects were caused by exposure to the creosote preservative through the clothing.

Even though no valid epidemiology studies of workers using creosote or coal tar formulations (CAG, 1977, 1982) have been performed, creosote and coal tar and many of their component chemicals have been well characterized as carcinogens in laboratory animals (PD-1, Coal Tar, Creosote, and Coal Tar Neutral Oils; PD-2/3,4 Wood Preservatives and Non-Wood Uses; IRAC, 1973, 1983). These studies, along with the several reports in the literature of skin cancer in people exposed to creosote and 4 coal tars, suggest that these chemicals are human carcinogens. A report by the Agency's Carcinogen Assessment Group (1977) summarizes several mouse skin painting studies (Woodhouse, 1950; Poel and Kramer, 1957; Lijinsky et al., 1957; Boutwell and Bosch, 1958) in which creosote was found to cause skin papillomas and carcinomas. In one study (Roe et al., 1958), lung adenomas as well as skin tumors were observed in mice receiving dermal applications of creosote oil.

The CAG report (1977) also summarizes numerous skin painting studies in which coal tars produced skin cancer in mice and rabbits. In addition, tumors of the lung were reported in mice inhaling coal tar aerosols (Horton et al., 1963).

Berenblum and Schoental (1947) tested several coal tar neutral oil fractions in mice and rabbits. Most fractions were found to be oncogenic. In 1961, Horton showed that extracts (in maleic anhydride) of coal tar neutral oils produced tumors in mice in about 33 weeks.

A dermal oncogenicity study (mouse skin painting study) is required to enable the Agency to quantify risk.

2. Oncogenicity of coal tar/creosote constituents. A series of aromatic amines, among them some monocyclic amines occurring in creosote (Nestler, 1974), were tested for long-term toxicity by dietary administration to Charles River rats and HaM/ICR mice (Weisburger et al., 1978). Of these amines, ortho- and para-toluidine, 2,4-xylidine, and 2,5-xylidine caused tumors in various tissues. The boiling points of these compounds range from 200°C to 215°C.

Chrysene, one of the major components of creosote, is a 4-ring polynuclear aromatic hydrocarbon (PAH) which boils at 448°C. As reviewed by the IARC (1973, 1983), chrysene causes skin tumors in mice, and acts as an initiator of skin cancer in mice.

The carcinogenicity of many of these larger PAH's has been studied and reviewed extensively (CAG, 1978b; IARC, 1973, 1983). Known PAH carcinogens in coal tar are:

benz[a]anthracene
benzo[b]fluoranthene
benz[c]acridine
benzo[e]pyrene
dibenzo[a,i]anthracene
dibenzo[a,h] pyrene
indeno [1,2,3-cd]pyrene
benz[a]carbazole
benzo[i]fluoranthene
benzo[a]pyrene
chrysene
dibenz[a,h]anthracene
dibenzo[a,i]pyrene

A number of chemicals in creosote and coal tar also act as cocarcinogens, initiators, accelerating agents and inhibitors which may serve to influence tumorigenic responses in test animals.

3. *Mutagenicity*. Coal tar/creosote formulations elicit mutagenic responses in microbial and mammalian species.

Creosote and coal tar/creosote have been shown to be mutagenic in bacteria (*Salmonella typhimurium*) and mammalian cells *in vitro* (L5178Y mouse lymphoma cells). In both test systems, the complex mixtures caused point/gene mutations in a dose-dependent manner in the presence of an exogenous hepatic metabolic activation system. In the bacterial tests, positive responses were found primarily in frameshift-sensitive tester strains. There are several known mutagens identified in coal tar/creosote (e.g., certain polycyclic aromatic hydrocarbons, aza-heterocyclic compounds, and aromatic amines). In *Salmonella*, these chemicals are known to act as frameshift mutagens that require metabolic activation.

There is also suggestive evidence that creosote causes unscheduled DNA synthesis in cultured human lung fibroblast (WI-38) cells.

Creosote and coal tar/creosote did not cause genetic damage in yeast tests for mitotic recombination, in *Escherichia coli* WP2 reverse mutation assays, and in differential growth inhibition tests using repair proficient and repair-deficient strains of *Bacillus subtilis* and *E. coli*. However, because of the limitations of these submammalian tests and because of inadequacies in the studies conducted, the reported negative results are not judged as evidence for the non-mutagenicity of coal tar/creosote.

Mutagenicity studies are required to further assess the mutagenic potential of coal tar/creosote.

4. *Teratogenicity*. Data are not available to evaluate teratogenic effects of coal tar/creosote. A teratogenicity study is required to assess these effects.

5. *Exposure*. Inhalation exposure to creosote can occur in a variety of ways. A discussion of treatment plant exposures appears in the PD 2/3. Measured values of polycyclic particulate organic matter in treatment plants, as well as confirmation of specific constituents in the breathing zones of workers, confirm that wood treatment results in inhalation exposure to creosote and its constiuents. Because the Agency is concerned about the chemicals in the breathing zone of workers in treatment plants, EPA is requiring monitoring to identify and quantify the chemicals to which workers are exposed.

6. *Risk assessment*. It is clear from the large number of laboratory studies on coal tar/creosote and its individual constituents that they are animal carcinogens and mutagens. This finding,

along with the fact that some finite, though presently unquantifiable, exposure to workers exists, gives rise to concerns regarding the risks to these workers.

The Agency is unable to perform a quantitative risk assessment for coal tar/creosote of the type usually conducted for oncogens. Since these products are complex mixtures with known synergistic effects, a risk assessment which combines an animal study potency value (Q*) based on any single carcinogenic constituent with an exposure value is not suitable.

An epidemiological study would be the best method to evaluate and quantitate the cancer risk associated with exposure to coal tar/creosote. The epidemiological study cited earlier (CAG, 1978a) for coke oven workers has limited usefulness because of variable conditions and degrees of exposure that may exist in the workplace. For example, coke ovens operate at high temperatures, leading to worker exposure to higher boiling point fractions of coal tar than is normally the case with wood treatment plant workers. All other available epidemiological studies have been judged inadequate for quantitative risk assessment purposes.

The Agency is requiring a study to determine whether it is feasible to design a suitable epidemiological study (See item 7, Part IV. Regulatory Position and Rationale).

B. OTHER SCIENCE FINDINGS

1. Acute toxicity. Coal tar/creosote formulations are currently categorized as corrosive or highly irritating to the eye (Toxicity Category I), but only moderate toxicity by systemic routes of exposure (Toxicity Category III). Skin exposure has been reported to result in burns, irritation, and sensitization among workers. Acute toxicity studies are required to verify these acute hazards.

2. Fish and wildlife toxicity. Laboratory bioassays indicate that coal tar products are moderately to highly toxic to aquatic organisms. Because the amount and type of exposure in the field is unknown, it is not possible to estimate hazard to aquatic organisms. Other than the laboratory studies, there is no evidence to date of environmental hazards to aquatic organisms (including endangered species) from its use in treating wood used in aquatic sites. Studies using composite test materials(CTM's) of AWPA standard products typically included in formulation for terrestrial and aquatic uses are required, and if toxicity is established, similar studies will be required involving exposure to wood that has been treated with these formulations.

C. TOLERANCE ASSESSMENT

There are no products registered that allow for direct food or feed uses of coal tar/creosote; therefore EPA has not established tolerances or exemptions from tolerances in raw agricultural commodities or processed food and feed products under the Federal Food, Drug and Cosmetic Act (FFDCA).

Label restrictions prohibit the use of coal tar or creosote products registered for farm and home use to treat wood intended to be used in a manner in which the preservative may become a component of food or feed. A similar statement appears as a recommendation regarding use of creosote-treated wood in a consumer information sheet which is the focus of a voluntary industry Consumer Information Program.

D. CHEMICALS TO BE TESTED

Because of the heterogeneous and variable composition of coal tar/creosote, it is not practical for EPA to use the approach to data generation followed with individual chemical ingredients.

This section describes the test types and test substances to be used in developing data on coal tar/creosote. Details on the test protocols can be found in the Pesticide Assessment Guidelines, and in the footnotes to Table A of Appendix I.

1. Standardized products as active ingredients. The initial step in defining appropriate test materials is to define the "active ingredients". For the purpose of this registration standard, the eight standard products defined by criteria established by the AWPA are active ingredients. The criteria consist of physical properties and percentages of specified distillate fractions (Refer to Section II)

Each of these active ingredients is not a single chemical in the traditional sense of the term. Each standard product is a complex mixture that may vary in chemical composition depending on the source materials and the production process. The composition of any one standard product may vary among producers and may vary between batches from a single producer.

Each registrant of a pesticide product containing coal tar/creosote will be required to certify the composition of his product in terms of the presence and quantity of each distillate fraction defined by the Agency. Product labels will also have to be changed to reflect the new names and percentages.

2. Composite Test Material for Toxicology Testing. For each AWPA specification registrants are required to produce a "Composite Test Material" (CTM) that will be used in the majority of toxicology tests. There will be eight CTMs, one for each AWPA standard.

A CTM is an appropriate test substance because it will be derived from production lots over time and from varying processes and facilities. Tests conducted with the CTM will therefore be representative of exposures likely to occur during the production processes used, and will yield results and show effects which are most likely to be seen in chronic exposures. In addition, because coal tar/creosote products may vary from batch to batch, it is possible that use of test substance from one batch would yield positive results, while a second batch would yield negative results.

Registrants have two options in selecting an appropriate CTM:

a. EPA's preferred option is that registrants of coal tar/creosote collectively develop a set of CTMs. Each such CTM should be representative of the typical AWPA standard produced by the registrants over time and from differing production processes and facilities.

b. Alternatively, each registrant may develop a CTM for each AWPA standard derived only from his own sources and processes. EPA notes, however, that not only would it be very costly to individual registrants to conduct the required testing on an individual basis, but the studies would yield data which, while highly specific to a particular product, might be duplicative and might not contribute optimally to an evaluation of coal tar/creosote products in general.

A sufficient quantity of each CTM must be produced and maintained by registrants for both testing and future reference purposes. Each of the eight CTMs must be completely analyzed to identify and quantify each individual constituent present at or above 0.5% of the CTM. Registrants will be required to certify the composition of the CTM used for all tests.

Before beginning tests with any CTM, registrants must consult with the Agency and obtain approval of the sampling protocol used to produce the CTM.

3. Selection of test materials for environmental fate studies. Guideline environmental fate studies are designed to investigate the fate of specific chemicals. Performing these standard tests

on the manufacturing use product composites is not practical because of the extensive number of components in each composite. Modifications in testing procedures may be warranted and, if so, will be prescribed by the Agency in order to satisfy certain environmental fate data requirements. Alternatively, individual components or groups of compounds in the coal tar/creosote composite may be selected for testing. Currently the Agency lacks adequate product chemistry data to fully evaluate which testing procedures/test materials are most appropriate for obtaining environmental fate information. When pertinent chemistry data required by this registration standard are available to the Agency, guidance on testing procedures and appropriate test materials will be provided to registrants.

4. Ecological effects testing. Ecological effects testing for fish and wildlife toxicity are to be conducted using the CTMs which meet AWPA Specifications for P1, P2C, and P13.

PART IV. REGULATORY POSITION AND RATIONALE

A. REGULATORY POSITIONS

Based on the review and evaluation of available data and other relevant information on coal tar/creosote, the Agency has made certain determinations relating to the protection of industry workers, the public and the environment from hazards directly attributable to the use of these pesticide products. The Agency's amended Notice of January 10, 1986 (51 FR 1334) outlines the Agency's regulatory position in detail.

1. Special Review. The Agency has conducted a Special Review of coal tar/creosote products and concludes that the benefits of use of these products outweigh the risks of use, if certain labeling changes are made. As a result of the Special Review, the Agency has imposed a number of protective measures to reduce exposure to coal tar and creosote products and will continue these requirements. Among the requirements are labeling changes restricting use to certified applicators and requiring certain protective clothing and equipment for applicators. The labeling requirements set forth in the January 10, 1986 Notice are detailed in Section IV.D. of this Standard.

Rationale. Coal tar/creosote pesticides pose potential oncogenic and mutagenic risks due to dermal and/or inhalation exposure. Substantial protection from risks is provided through implementation and practice of certain requirements including protective clothing and equipment, pesticide use restrictions, and applicator certification. These provisions are discussed in detail in the amended Notice and are also contained in Section IV.D. of this Standard.

Protective clothing will reduce total dermal exposure by more than 80%. Proper handling/cleaning/disposal of contaminated or worn out protective clothing will reduce potential exposure and risk to the worker and his family. Inhalation exposure to applicators wearing effective and properly fitted respirators may be reduced by more than 90%.

Improved industrial hygiene practices, including thorough washing and prohibitions on eating, drinking and smoking during application, will significantly reduce exposure and reduce the inherent risks associated with coal tar/creosote.

A prohibition for the home and farm uses of coal tar/creosote on wood intended for interior use, with certain exceptions, will substantially reduce potential inhalation and dermal exposures to the general public.

Restricted Use classification of coal tar/creosote pesticides which permits sale to and use only by certified applicators or

11

persons under their direct supervision will reduce opportunities for misuse and thereby decrease exposure and potential risk.

2. Maintenance of Composite Test Material(CTM). The Agency is requiring that a Composite Test Material for each of the AWPA standard products be developed by registrants and maintained by a single organization, designated by the current registrants and approved by the Agency. This standardized test material will serve as the test substance for all toxicological testing as well as other generic data requirements. If a registrant elects to develop CTMs based on his own sources and processes, he must maintain the CTMs.

Rationale: The Agency must have data that are representative of the range of coal tar/creosote products. Since the Composite Test Material may not be the product of any one registrant's production, the test material must be maintained for future reference.

3. Toxicology studies. The Agency is requiring toxicology studies on three AWPA standard products (P1, P2C, and P2D) to further evaluate the toxicological effects of coal tar and creosote products. These studies must be conducted using a composite of each of the standard products. A reference sample of each Composite Test Material must be maintained, and the identity and percentages of its components defined. If a registrant elects to develop a CTM based on his own sources and processes, he must conduct the full battery of required toxicological testing.

Rationale: Because of the complexity of coal tar/creosote composition and its variability depending on source, production process and batch parameters, no single formulation is representative of the products currently produced. A Composite Test Material based upon actual production of a number of products will both permit registrants to avoid costly and duplicative testing of individual products, while also enabling the Agency to draw conclusions concerning the toxicological effects of coal tar/creosote products in general.

The three mixtures selected for testing will encompass the span of commercially available compositions ranging from a pure distillation fraction of coal tar to the coal tar/creosote solution containing the maximum content of coal tar. This range would also include the composition most widely employed in the wood preservation industry.

Data resulting from these studies will provide essential baseline toxicological data on each of the three AWPA standard products. These data will, in turn, serve as a basis for determining the degree of risk associated with each standard product.

12

4. Ecological effects studies. The Agency has determined that there are inadequate data to define the toxicity of coal tar and creosote products to fish and other aquatic species. Studies are required using typical end use formulation products used for wood preservation in aquatic sites. The most widely used product(P2C) must be used for avian, fish and invertebrate toxicity testing. The P1 and P13 products must be used in tests related to freshwater and marine aquatic uses. If the data generated by these studies demonstrate that typical AWPA products are hazardous to fish and aquatic species, studies using treated wood may be required.

Rationale: Fish and aquatic effects data should be based upon actual exposure parameters if possible. EPA believes that ecological effects testing should therefore be conducted initially with AWPA products that are recommended for and specific to aquatic sites, followed if necessary by testing using treated wood to determine effects under simulated use conditions.

5. Environmental fate studies. The Agency is requiring all data requirements for terrestrial and aquatic nonfood uses (40 CFR 158.130). Appropriate testing procedures/test materials will be selected after the Agency evaluates completed product chemistry data and other pertinent information.

Rationale: Coal tar/creosote products consist of a myriad of individual chemical components. Since environmental fate studies are designed to obtain information on individual constituents, alteration of the testing procedures and/or the normally required test material may be warranted. Product chemistry and other pertinent data will be utilized to select appropriate procedures/test materials.

6. Protective clothing evaluation. The Agency is requiring data on permeation and breakthrough time for protective clothing materials. Studies must evaluate the degree to which protective materials used for gloves and coveralls resist permeation. In addition, mechanical abrasion and durability of the materials must also be provided. Information on the types of materials which must be tested is contained in Appendix I, Table A(Work Exposure Section).

Rationale: Because coal tar/creosote formulations have the ability to dissolve and/or permeate rubber gloves and some other protective clothing, the Agency is requiring these studies to determine which specific materials will offer the most protection to workers.

7. Epidemiology feasibility study. The Agency is requiring that registrants develop information on conducting an epidemiological study. The preliminary study consists of an assessment

of the availability and completeness of personnel records from treatment plants, together with an assessment of similar records in sawmills and planing plants for control purposes. Appendix II of this document is a questionnaire which may be used for this purpose. The information obtained in the preliminary study will be utilized in designing a comprehensive epidemiological study.

Rationale: Existing epidemiological data are inadequate to fully assess the risks of use of coal tar/creosote products in wood preserving plants because they failed to clearly define the study population, to follow individuals, or to take into account smoking habits of workers.

8. Work activities in wood preserving plants. The Agency is requiring information on the kinds of work activities performed in creosote treatment plants. Information on duration of exposure and work activities involving dermal and inhalation exposure are required. This information will be used together with the preliminary study to assist in the design of a comprehensive epidemiological study.

Rationale: Information on typical work activities and exposure situations must be incorporated into the epidemiological study protocol.

9. Exposure studies. The Agency is requiring exposure studies to measure the quantity and chemical makeup of chemicals to which workers are exposed in wood preservative treatment plants. These studies are to monitor ambient air exposures (particulate and vapor phase) of coal tar/creosote as well as the kind and extent of dermal and inhalation exposure at the various work stations in wood treatment plants.

Rationale: Exposure studies are needed to adequately assess risks to workers in treatment plants. The studies will be used together with the laboratory animal toxicology studies to quantify risks to workers and to identify exposure reduction measures in treatment plants.

B. CRITERIA FOR REGISTRATION

To be registered or reregistered under this Standard, products must contain AWPA coal tar/creosote standard products designated as active ingredients, bear required labeling, and conform to the product composition, acute toxicity limits, and use pattern requirements listed in this section.

C. ACCEPTABLE RANGES AND LIMITS

1. Product Composition Standard

To be registered or reregistered under this Standard, manufacturing-use products (MPs) must contain AWPA coal tar/creosote standard products. Each formulation proposed for registration must be fully described with an appropriate certification of limits of the percentage of each standard product, as well as a certification of limits for any inert ingredients which are intentionally added.

2. Acute Toxicity Limits.

The Agency will consider registration of manufacturing-use products containing coal tar/creosote provided that the product labeling bears appropriate precautionary statements for the acute toxicity category in which each product is placed.

3. Use Patterns

To be registered as a manufacturing use product under this Standard, products may be labeled for formulation into end-use products only for the uses listed below. The Use Index lists all registered uses, as well as approved maximum application rates and frequencies.

°Terrestrial, non-domestic, non-food uses on: wood
°Domestic, outdoor uses on: wood

D. REQUIRED LABELING

All manufacturing-use products must bear appropriate labeling as specified in 40 CFR 162.10.

In addition to the above, the following information must appear on the labeling:

1. Ingredients Statement

The ingredient statement for all products must list the active ingredients as AWPA standard products, as appropriate:

P1 ......____%
P7 ......____%
P13 ......____%
P2A ......____%
P2B ......____%
P2C ......____%
P2D ......____%
P12 ......____%

2. Signal word

The signal word DANGER must appear on the label of all coal tar/creosote products.

Use Pattern Statements

All manufacturing use (MP) products must state that they are intended for formulation into end use products for acceptable use patterns. Labeling must specify sites, which are listed in Use Patterns, Section C.3. However, no use may be included on the label where the registrant fails to agree to comply with the data requirements in TABLE A for that use pattern.

4. Statement of practical treatment. Statements may be combined to avoid redundancy.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

If in eyes: Flush with plenty of water. Call a physician.

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. Get medical attention.

5. Precautionary statements: Hazards to Humans and Domestic Animals

DANGER: May be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist. Use with adequate ventilation. Do not take internally. Wash thoroughly after skin contact, before eating, drinking, use of tobacco products, or using restrooms.

6. Additional Precautionary statements for End Use Products

Additional precautionary/prohibition language is required on product labels based on the intended uses of the product. As presented below, there are five designated use categories for coal tar/ creosote end use products that require statements.

a. Products labeled for pressure treatment of wood

RESTRICTED USE PESTICIDE

For sale to and use only by certified applicators or by

16

persons under their direct supervision and only for those uses covered by the certified applicator's certification.

Individuals must wear gloves impervious to the wood treatment formulation in all situations where dermal contact with creosote is expected (e.g., handling freshly treated wood and manually opening cylinder doors).

Individuals who manually open cylinder doors must wear gloves and a respirator.

Individuals who enter pressure treatment cylinders and other related equipment that is contaminated with the wood treatment formulation (e.g., cylinders that are in operation or are not free of the treatment formulation) must wear protective clothing (including overalls, jacket, gloves and boots) impervious to the wood treatment formulation and a respirator. Acceptable materials for protective clothing during application and handling of this product are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene and NBR (Buna-N).

Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and workshoes or boots and equipment at the plant. Worn out protective clothing and workshoes or boots must be left at the plant and disposed of in any general landfill, in the trash, or in any other manner approved for pesticide disposal.

Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation (e.g., manually opening/closing cylinder doors, moving trams out of cylinder, mixing chemicals, and handling freshly treated wood).

Wash thoroughly after skin contact, and before eating, drinking, use of tobacco products, or using restrooms.

Note to User: As used on this label, the term "respirator" means properly fitting, well-maintained, half-mask canister or cartridge respirators which are MSHA/NIOSH-approved for polynuclear aromatics and organic vapors. Examples of acceptable materials for protective clothing (e.g., gloves, overalls, jackets, and boots) required during application and handling of creosote are polyvinyl acetate(PVA), polyvinyl chloride (PVC), neoprene, and NBR (Buna-N).

b. Products labeled for groundline treatment of utility poles

RESTRICTED USE PESTICIDE

17

For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicator's certification.

Applicators must wear gloves impervious to the wood treatment formulations (e.g., polyvinyl acetate (PVA), polyvinyl chloride (PVC), or neoprene) in all situations where dermal contact is expected (e.g., during the actual application process and when handling freshly treated wood).

Applicators must wear long sleeved shirts, long pants, and an impermeable apron during the application and mixing processes and all situations where dermal contact is expected.

Work clothing must be changed when it shows signs of contamination. Launder work clothing separately from other household laundry. Dispose of wornout work clothing and workshoes or boots in any general landfill, in the trash, or in any other manner approved for pesticide disposal.

Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.

Wash thoroughly after skin contact, and before eating, drinking, use of tobacco products, or using restrooms.

c. Products labeled as wood preservatives for home and farm use

RESTRICTED USE PESTICIDE

For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators' certification.

Applicators must wear gloves impervious to the wood treatment formulation in all situations where dermal contact is expected (for example, during the actual application process and when handling freshly treated wood).

Spray applicators must wear protective clothing (including overalls, jackets, gloves, boots, and head covering) impervious to the wood treatment formulation, and a respirator and goggles when spraying.

Applicators who apply this product by other application processes (e.g., brush-on) must wear long sleeved shirts, long pants and an impermeable apron. Launder work clothing seperately from other household laundry.

Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.

Wash thoroughly after skin contact, and before eating, drinking, use of tobacco products, or using restrooms.

Protective clothing must be changed when it shows signs of contamination. Dispose of worn out protective clothing and workshoes or boots in a general landfill, in the trash or in any other manner approved for pesticide disposal.

Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatics and organic vapors.

Do not apply where there may be direct contact with domestic animals or livestock, and where there may be contamination of food, feed, or drinking and irrigation water.

Do not apply in interiors. Do not apply to wood intended for use in interiors except for those support structures which are in contact with the soil in barns, stables, and similar sites and which are subject to decay or insect infestation. Interior surfaces of the treated wood should be sealed with two coats of an appropriate sealers. Sealers may be applied at the installation site.

Do not apply to wood intended for farrowing or brooding facilities. Do not apply to wood intended to be used in the interiors of farm buildings where there may be direct contact with domestic animals or livestock which may crib (bite) or lick the wood. This product may be used to treat wood intended to be used in interiors of farm buildings where domestic animals or livestock are unlikely to crib or lick the wood, if two coats of an appropriate sealer will be applied. Sealers may be applied at the installation site.

Do not apply to wood intended to be used in a manner in which the preservative may become a component of food or animal feed. Examples of such sites would be structures or containers for storing silage or food.

Do not use this product to treat wood intended to be used for cutting boards or counter tops.

Do not use this product to treat wood intended for construction of those portions of beehives which may come into contact with the honey.

Do not use this product to treat wood intended for use where it may come into direct or indirect contact with public drinking water, except for those uses involving incidental contact such as docks and bridges.

Do not use this product to treat wood intended to be used where it may come into direct or indirect contact with drinking water for domestic animals or livestock, except for uses involving incidental contact such as docks and bridges.

Wood to be treated with this product should be cut to size before treatment. If it is necessary to saw or machine wood after treatment, wear goggles to protect the eyes from flying particles and a dust mask to aviod inhaling sawdust from the treated wood. If oily preservatives or sawdust accumulate on clothes, launder before re-use. Wash work clothes separately from other household laundry.

Contact with treated surfaces should be avoided even after the preservative has dried. When handling treated wood wear long-sleeved shirts, long pants, and impervious gloves (e.g., vinyl coated).

Wash exposed skin thoroughly after contact with treated wood and before eating, drinking or using tobacco products.

Wood which has been treated with this product should be disposed of by burial or ordinary trash collection. Do not burn treated wood in an outdoor fire or in stoves or fireplaces because toxic chemicals may be produced as part of the smoke and ashes.

This product should not be used to treat wood which will be in frequent or prolonged contact with skin, unless the wood will be treated with an effective sealer.

Note to User: As used on this label, the term "respirator" means properly fitting, well-maintained, half-mask canister or cartridge respirators which are MSHA/NIOSH-approved for polynuclear aromatics and organic vapors. Examples of acceptable materials for protective clothing (e.g., gloves, overalls, head covering, jackets, and boots) required during application and handling of creosote are polyvinyl acetate(PVA), polyvinyl chloride (PVC), neoprene, and NBR (Buna-N). Urethane, epoxy, and shellac are acceptable sealers for all creosote-treated wood.

d. Products labeled as wood preservatives for use in non-pressure treatment plants

RESTRICTED USE PESTICIDE

For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicator's certification.

Applicators must wear gloves impervious to the wood treatment formulation in all situations where dermal contact is expected (for example, during the actual application process and when handling freshly treated wood).

Spray applicators must wear protective clothing (including overalls, jackets, gloves, boots, and head covering) impervious to the wood treatment formulation, and a respirator and goggles when spraying. Acceptable materials for protective clothing during application and handling of this product are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene and NBR (Buna-N).

Individuals who enter, clean or repair vats, tanks or other related equipment that is contaminated with the wood treatment formulation (e.g., tanks that are in operation or are not free of the treatment formulation) must wear protective clothing (including overalls, jacket, gloves and boots) impervious to the wood treatment formulation, and goggles and a respirator.

Applicators who apply creosote by other application processes (e.g., brush on) must wear disposable coveralls or other suitable impermeable protective clothing.

Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.

Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and workshoes or boots and equipment at the plant. Worn out protective clothing and workshoes or boots must be left at the plant and disposed of in any general landfill, in the trash, or in any other manner approved for pesticide disposal.

Wash exposed skin thoroughly after contact with treated wood and before eating, drinking or using tobacco products.

Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatic and organic vapors.

Note to User: As used on this label, the term "respirator" means properly fitting, well-maintained, half-mask canister or cartridge respirators which are MSHA/NIOSH-approved for polynuclear aromatics and organic vapors. Examples of acceptable materials for protective clothing (e.g., gloves, overalls, jackets, and boots) required during application and handling of creosote are polyvinyl acetate(PVA), polyvinyl chloride (PVC), neoprene, and NBR (Buna-N).

e. Products labeled as wood preservatives for use in pole framing, piling applications and railroad tie repair

For pole framing, piling applications and railroad tie repair use only. Not for household, farm, or nonpressure wood treatment plant use. For application to end cuts, bolt holes, and hardware fabrication.

Do not dilute or mix with other products. Ready for use.

Applicators must wear gloves impervious to the wood treatment formulation in all situations where dermal contact is expected (for example, during the actual application process and when handling freshly treated wood).

Spray applicators must wear protective clothing (including overalls, jackets, gloves, head covering, and boots) impervious to the wood treatment formulation, a properly fitting, well-maintained canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatics and organic vapors, and goggles when spraying.

Railroad tie repair spray applicators operating a mechanized tie sprayer (dual adzer) must wear longsleeved shirts and long pants or other suitable protective clothing. Applicators engaged in loading or maintenance of the spray equipment or other activities which may result in exposure to liquids, splashes or spills must wear long sleeved shirts, long pants and an impermeable apron.

Wash exposed skin thoroughly after contact with treated

22

wood and before eating, drinking or using tobacco products.

Railroad tie repair spray applicators operating non-mechanized spray equipment must wear long sleeved shirts, long pants and an impermeable apron, gloves and boots and head covering impervious to the wood treatment formulation, and a respirator and goggles. Applicators engaged in loading or maintenance of the spray equipment or other activities which may result in exposure to liquids, splashes or spills must wear long sleeved shirts and long pants and an impermeable apron.

Applicators who apply creosote by other application processes (e.g., brush-on) must wear long sleeved shirts, long pants and an impermeable apron.

Protective clothing, workshoes or boots and equipment must not be taken home.

Protective clothing must be changed when it shows signs of contamination. Dispose of worn out protective clothing and workshoes or boots in a general landfill, in the trash or in any other manner approved for pesticide disposal.

Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.

Applicators must complete an EPA approved training program.

For the pole framing, piling applications and railroad tie repair applications the label must also state:

For sale only to pole framing, piling and railroad tie repair applicators.

For sale only in 10 gallon or larger containers. A package of two five gallon containers is permissible.

Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatic and organic vapors.

Note to User: As used on this label, the term "respirator" means properly fitting, well-maintained, half-mask canister or cartridge respirators which are MSHA/NIOSH-approved for polynuclear aromatics and organic vapors. Examples of acceptable materials for protective clothing (e.g., gloves, overalls, jackets, and boots) required during application and handling of creosote are polyvinyl acetate(PVA), polyvinyl chloride (PVC), neoprene, and NBR (Buna-N).

7. Environmental Hazard Statements

The following statement must appear on all labels:

> This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional office of the EPA.

8. Disposal statements.

All products except household/domestic products

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Household/domestic products:

Securely wrap original pesticide container in several layers of newspaper and discard in the trash. Do not reuse empty containers.

V. PRODUCTS SUBJECT TO THIS STANDARD

All products containing one or more of the pesticides identified in Section II.A. are subject to certain requirements for data submission or changes in composition, labeling or packaging of the product. The applicable requirements depend on whether the product is a manufacturing or end use product and whether the pesticide is the sole active ingredient or one of multiple active ingredients.

Products are subject to this Registration Standard as follows:

A. Manufacturing use products containing this pesticide as the sole active ingredient are subject to:

1. The restrictions (if any) upon use, composition, or packaging listed in Section IV, if they pertain to the manufacturing use product.

2. The data requirements listed in Tables A and B[2]

3. The labeling requirements specified for manufacturing use products in Section IV.

4. Administrative requirements (application forms, Confidential Statement of Formula, data compensation provisions) associated with reregistration.

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[2] Data requirements are listed in the three Tables in Appendix I of this Registration Standard. The Guide to Tables in that Appendix explains how to read the Tables.

Table A lists generic data requirements applicable to all products containing the pesticide subject to this Registration Standard. Table B lists product-specific data applicable to manufacturing use products. The data in Tables A and B need not be submitted by a producer who is eligible for the formulator's exemption for that active ingredient.

Table C lists product-specific data applicable to end use products. The Agency has decided that, in most cases, it will not require the submission of product-specific data for end use products at this time. Therefore most Registration Standards do not contain a Table C.

B. Manufacturing use products containing this pesticide as one of multiple active ingredients are subject to:

1. The data requirements listed in Table A.

2. The labeling requirements specified for manufacturing use products in Section IV.

C. End use products containing this pesticide as the sole active ingredient are subject to:

1. The restrictions (if any) upon use, composition, or packaging listed in Section IV if they pertain to the end use product.

2. If eligible for the formulator's exemption[3], the data requirements listed in Table C.

3. If not eligible for the formulator's exemption, the data requirements listed in Table A and the data requirements listed in Table C.

4. The labeling requirements specified for end use products in Section IV.

D. End use products containing this pesticide as one of multiple active ingredients are subject to:

1. If not eligible for the formulator's exemption, the date requirements listed in Tables A and C.

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[3] If you purchase from another producer and use as the source of your active ingredient only EPA-registered products, you are eligible for the formulator's exemption for generic data concerning that active ingredient (Table A) and product-specific data for the registered manufacturing use product you purchase (Table B).

Two circumstances nullify this exemption:

1) If you change sources of active ingredient to an unregistered product, formulate your own active ingredient, or acquire your active ingredient from a firm with ownership in common with yours, you individually lose the exemption and become subject to the data requirements in Table A.

2) If no producer subject to the generic data requirements in Table A agrees to submit the required data, all end use producers lose the exemption, and become subject to those data requirements.

26

2. If eligible for the formulator's exemption, the data requirements listed in Table C.

3. The labeling requirements specified for end use products in Section IV.

VI. REQUIREMENT FOR SUBMISSION OF GENERIC DATA

This portion of the Registration Standard is a notice issued under the authority of FIFRA sec. 3(c)(2)(B). It refers to the data listed in Table A, which are required to be submitted by registrants to maintain in effect the registration of products containing this active ingredient.[4]

A. What are generic data?

Generic data pertain to the properties or effects of a particular active ingredient. Such data are relevant to an evaluation of all products containing that active ingredient regardless of whether the product contains other ingredients (unless the product bears labeling that would make the data requirement inapplicable).

Generic data may also be data on a "typical formulation" of a product. "Typical formulation" testing is often required for ecological effects studies and applies to all products having that formulation type. These are classed as generic data, and are contained in Table A.

B. Who must submit generic data?

All current registrants are responsible for submitting generic data in response to a data request under FIFRA sec. 3(c)(2)(B) (DCI Notice). EPA has decided, however, not to require a registrant who qualifies for the formulator's exemption (FIFRA sec. 3(c)(2)(D) and § 152.85) to submit generic data in response to a DCI notice if the registrant who supplies the active ingredient in his product is complying with the data request.

If you are granted a generic data exemption, you rely on the efforts of other persons to provide the Agency with the required data. If the registrants who have committed to generate and submit the required data fail to take appropriate steps to meet the requirements or are no longer in compliance with this data requirements notice, the Agency will consider that both they and you are not in compliance and will normally initiate proceedings to suspend the registrations of both your product(s) and their product(s) unless you commit to submit and submit the required data in the specified timeframe. In such cases, the Agency generally will not grant a time extension for submitting the data.

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[4] Registrations granted after issuance of this Standard will be conditioned upon submission or citation of the data listed in this Registration Standard.

If you are not now eligible for a formulator's exemption, you may qualify for one if you change your source of supply to a registered source that does not share ownership in common with your firm. If you choose to change sources of supply, the Confidential Statement of Formula must identify the new source(s) and you must submit a Formulator's Exemption Statement form.

If you apply for a new registration for products containing this active ingredient after the issuance of this Registration Standard, you will be required to submit or cite generic data relevant to the uses of your product if, at the time the application is submitted, the data have been submitted to the Agency by current registrants. If the required data have not yet been submitted, any new registration will be conditioned upon the new registrant's submission or citation of the required data not later than the date upon which current registrants of similar products are required to provide such data. See FIFRA sec. 3(c)(7)(A). If you thereafter fail to comply with the condition of that registration to provide data, the registration may be cancelled (FIFRA sec. 6(e)).

C. What generic data must be submitted?

You may determine which generic data you must submit by consulting Table A. That table lists the generic data needed to evaluate current uses of all products containing this active ingredient, the uses for which such data are required, and the dates by which the data must be submitted to the Agency.

D. How to comply with DCI requirements.

Within 90 days of your receipt of this Registration Standard, you must submit to EPA a completed copy of the form entitled "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1, enclosed) for each of your products. On that form you must state which of the following six methods you will use to comply with the DCI requirements:

1. You will submit the data yourself.

2. You have entered into an agreement with one or more registrants to jointly develop (or share in the cost of developing) the data, but will not be submitting the data yourself. If you use this method, you must state who will submit the data on which you will rely. You must also provide

EPA with documentary evidence that an agreement has been formed which allows you to rely upon the data to be submitted. Such evidence may be: (1) your letter offering to join in an agreement and the other registrant's acceptance of your offer, (2) a written statement by the parties that an agreement exists, or (3) a written statement by the person who will be submitting the data that you may rely upon its submission. The Agency will also require adequate assurance that the person whom you state will provide the data is taking appropriate steps to secure it. The agreement to produce the data need not specify all of the terms of the final arrangement between the parties or a mechanism to resolve the terms.

If you and other registrants together are generating or submitting requested data as a task force or consortium, a representative of the group should request a Joint Data Submitter Number from the Registration Support and Emergency Response Branch, Registration Division. The request must include the following information:

a. A list of the members of the consortium;
b. The name and address of the designated representative of the consortium, with whom EPA will correspond concerning the data;
c. Identity of the Registration Standard containing the data requirement;
d. A list of the products affected (from all members of the consortium); and
e. Identification of the specific data that the consortium will be generating or submitting.

The Agency will assign a number to the consortium, which should be used on all data submissions by the consortium.

3. You have attempted to enter into an agreement to jointly develop data, but no other registrant has accepted your offer. You request that EPA not suspend your registration for non-compliance with the DCI. EPA has determined that, as a general policy, it will not suspend the registration of a product when the registrant has in good faith sought and continues to seek to enter into a data development/cost sharing program, but the other registrants developing the data have refused to accept its offer. [If your offer is accepted, you may qualify for Option 2 above by entering into an agreement to supply the data.]

In order to qualify for this method, you must:

1. File with EPA a completed "Certification of Attempt to Enter into an Agreement with other Registrants for Development of Data" (EPA Form 8580-6, enclosed).

2. Provide us with a copy of your offer to the other

registrant and proof of the other registrant's receipt of your offer (such as a certified mail receipt). Your offer must, at a minimum, contain the following language or its equivalent:

> [Your company name] offers to share in the burden of producing the data required pursuant to FIFRA sec. 3(c)(2)(B) in the [name of active ingredient] Registration Standard upon terms to be agreed or failing agreement to be bound by binding arbitration as provided by FIFRA section 3(c)(2)(B)(iii).

The remainder of your offer may not in any way attempt to limit this commitment. If the other registrant to whom your offer is made does not accept your offer, and if the other registrant informs us on a DCI Summary Sheet that he will develop and submit the data required under the DCI, then you may qualify for this option. In order for you to avoid suspension under this method, you may not later withdraw or limit your offer to share in the burden of developing the data.

In addition, the other registrant must fulfill its commitment to develop and submit the data as required by this Notice in a timely manner. If the other registrant fails to develop the data or for some other reason would be subject to suspension, your registration as well as that of the other registrant will normally be subject to initiation of suspension proceedings, unless you commit to submit and submit the required data in the specified timeframe. In such cases, the Agency generally will not grant a time extension for submitting the data.

4. You request a waiver of the data requirement. If you believe that a data requirement does not (or should not) apply to your product or its uses, you must provide EPA with a statement of the reasons why you believe this is so. Your statement must address the specific composition or use factors that lead you to believe that a requirement does not apply. Since the Agency has carefully considered the composition and uses of pesticide products in determining that a data requirement applies, EPA does not anticipate that many waivers will be granted. A request for waiver does not extend the timeframes for developing required data, and if your waiver request is denied, your registration may be suspended if you fail to submit the data.

5. You request that EPA amend your registration by deleting the uses for which the data are needed. You are not required to submit data for uses which are no longer on your label.

6. You request voluntary cancellation of the registration of your product(s) for which the data are needed.

30

E. Testing Protocols, Standards for Conducting Acceptable Tests, Guidance on Evaluating and Reporting Data.

All studies required under this Notice must be conducted in accordance with test standards outlined in the Pesticide Assessment Guidelines, unless other protocol or standards are approved for use by the Agency in writing.

As noted herein, these EPA Guidelines, which are referenced in the Data Tables, are available from the National Technical Information Service (NTIS), Attn: Order Desk, 5285 Port Royal Road, Springfield, VA 22161 (tel: 703-487-4650).

Protocols approved by the Organization for Economic Cooperation and Development (OECD) are also acceptable if the OECD-recommended test standards conform to those specified in the Pesticide Data Requirements regulation (Part 158.70). Please note, however, that certain OECD standards (such as test duration, selection of test species, and degradate identification which are environmental fate requirements) are less restrictive than those in the EPA Assessment Guidelines listed above. When using the OECD protocols, they should be be modified as appropriate so that the data generated by the study will satisfy the requirements of Part 158. Normally, the Agency will not extend deadlines for complying with data requirements when the studies were not conducted in accord with acceptable standards. The OECD protocols are available from OECD, 1750 Pennsylvania Avenue, N.W., Washington, D.C. 20006.

F. Procedures for requesting a change in testing protocol.

If you will generate the required data and plan to use test procedures which deviate from EPA's Pesticide Assessment Guidelines or the Reports of Expert Groups to the Chemicals Group, Organization for Economic Cooperation and Development (OECD) Chemicals Testing Programme, you must submit for EPA approval the protocols you propose to use.

You should submit your protocols before beginning testing, because the Agency will not ordinarily accept as sufficient studies using unapproved protocols. A request for protocol approval will not extend the timeframe for submission of the data, nor will extensions generally be given to conduct studies due to submittal of inappropriate protocols.

G. Procedures for requesting extensions of time.

If you think that you will need more time to generate the data than is allowed by EPA's schedule, you may submit a request for an extension of time. Any request for a time 31 extension which is made as an initial response to a section 3(c)(2)(B) request notice must be submitted in writing to the Product Manager listed at the end of this section and must be made by the 90-day deadline for response. Once dates have been committed to and EPA has accepted these commitments, any subsequent requests for a time extension must be submitted in writing to the Office of Compliance Monitoring at the address given in Section IX.E.

EPA will view failure to request an extension before the data submission response deadline as a waiver of any future claim that there was insufficient time to submit the data. While EPA considers your request, you must strive to meet the deadline for submitting the data.

The extension request should state the reasons why you believe that an extension is necessary and the steps you have taken to meet the testing deadline. Time extensions normally will not be granted due to problems with laboratory capacity or adequacy of funding, since the Agency believes that with proper planning these can be overcome.

A request for an extension does not extend the timeframe for submission of the data. If EPA denies your request for a time extension and you do not submit the data as requested, EPA may begin proceedings to suspend the registrations of your products.

H. PR Notice 86-5 and Any Other Requirements Referenced or Included Within this Notice.

All data submitted in response to this Notice must comply with EPA requirements regarding the reporting of data, including the manner of reporting, the completeness of results, and the adequacy of any required supporting (or raw) data, including, but not limited to, requirements referenced or included in this Notice or contained in PR Notice 86-5 (issued July 29, 1986).

I. Existing stocks provision upon suspension or cancellation.

The Agency has determined that if a registration is suspended for failure to respond to a DCI request under FIFRA sec. 3(c)(2)(B), an existing stocks provision is not consistent with the Act. Accordingly, the Agency does not anticipate granting permission to sell or distribute existing stocks of suspended product except in rare circumstances. If you believe that your product will be suspended or cancelled and that an existing stocks provision should be granted, you have the burden of clearly demonstrating to EPA that granting such permission would be consistent with the Act. The following information must be included in any request for an existing stocks provision:

1. Explanation of why an existing stocks provision is necessary, including a statement of the quantity of existing stocks and your estimate of the time required for their sale or distribution; and

2. Demonstration that such a provision would be consistent with the provisions of FIFRA.

VII. REQUIREMENT FOR SUBMISSION OF PRODUCT-SPECIFIC DATA

Under its DCI authority, EPA has determined that certain product-specific data are required to maintain your registrations in effect. Product-specific data are derived from testing using a specific formulated product, and, unlike generic data, generally support only the registration of that product. All such data must be submitted by the dates specified in this Registration Standard.

If you have a manufacturing use product, these data are listed in Table B. If you have an end use product, the data are listed in Table C. As noted earlier, the Agency has decided that it will not routinely require product-specific data for end use products at this time. Therefore, Table C may not be contained in this Registration Standard; if there is no Table C, you are not required to submit the data at this time.

In order to comply with the product specific data requirements, you must follow the same procedures as for generic data. See Section VI.D, E, F, and G. You should note, however, that product chemistry data are required for every product, and the only acceptable responses are options VI.D.1. (submit data) or VI.D.6.(cancellation of registration).

Failure to comply with the product-specific data requirements for your products will result in suspension of the product's registration.

VIII. REQUIREMENT FOR SUBMISSION OF REVISED LABELING

FIFRA requires each product to be labeled with accurate, complete and sufficient instructions and precautions, reflecting the Agency's assessment of the data supporting the product and its uses. General labeling requirements are set out in 40 CFR 162.10 (see Appendix III - LABELING and SUMMARY). In addition, labeling requirements specific to products containing this pesticide are specified in Section IV.D of this Registration Standard. Applications submitted in response to this notice must include draft labeling for Agency review.

If you fail to submit revised labeling as required, which complies with 40 CFR 162.10 and the specific instructions in Section IV.D., EPA may seek to cancel or suspend the registration of your product under FIFRA sec. 6.

IX. INSTRUCTIONS FOR SUBMISSION

A. Manufacturing Use Products (MUPs) containing the subject pesticide as sole active ingredient.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division for each product subject to this Registration Standard:

a. The "FIFRA Section 3(c)(2)(B) Summary Sheet" (EPA Form 8580-1), with appropriate attachments.[5]

b. Confidential Statement of Formula (EPA Form 8570-4).

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

d. Evidence of compliance with data compensation requirements of FIFRA sec. 3(c)(1)(D). Refer to 40 CFR 152.80-152.99.

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[5] If on the Summary Sheet, you commit to develop the data, present arguments that a data requirement is not applicable or should be waived, or submit protocols or modified protocols for Agency review, you must submit a copy of the Summary Sheet (and any supporting information) to the Office of Compliance Monitoring, which will be monitoring the data generated in response to this notice. This submission is in addition to responding to the Product Manager, and should be submitted to the Office of Compliance Monitoring at the address given at the end of this section. (Actual studies are not to be submitted to the Office of Compliance Monitoring.)

2. Within 9 months from receipt of this document you must submit to the Product Manager:

a. Application for Pesticide Registration (EPA Form 8570-1).

b. Two copies of any required product-specific data (See Table B).

c. Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft label must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text.

d. Product Specific Data Report (EPA Form 8580-4).

3. Within the times set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

B. Manufacturing Use Products containing the subject pesticide in combination with other active ingredients.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

a. FIFRA sec. 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

b. Confidential Statement of Formula (EPA Form 8570-4)

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

2. Within 9 months of receipt of this document, you must submit to the Product Manager:

Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft label must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text.

3. Within the time frames set forth in Table A, you must submit to the Registration Division all generic data, unless you are eligible for the formulator's exemption. If for any reason any test is delayed or aborted so that the schedule cannot be met, immediately notify the Product Manager and the Office of Compliance Monitoring of the problem, the reasons for the problem, and your proposed course of action.

C. End Use Products containing the subject pesticide as sole active ingredient.

1. Within 90 days from receipt of this document, you must submit to the Product Manager in the Registration Division:

a. FIFRA Section 3(c)(2)(B) Summary Sheet, with appropriate attachments[5] (EPA Form 8580-1).

b. Confidential Statement of Formula (EPA Form 8570-4).

c. Formulator's Exemption Statement (EPA Form 8570-27), if applicable.

2. Within 9 months from receipt of this document you must submit to the Product Manager:

a. Two copies of any product-specific data, if required by Table C.

b. Product Specific Data Report (EPA Form 8580-4), if Table C lists required product-specific data.

c. Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft labeling must indicate the intended colors of the final label, clear indication of the front panel of the label, and the intended type sizes of the text. End use product labeling must comply specifically with the instructions in Section IV (Regulatory Position and Rationale).

D. End Use Products containing the subject active ingredient as one of multiple active ingredients

Within 9 months from the receipt of this document, you must submit to the Product Manager:

Three copies of draft labeling, including the container label and any associated supplemental labeling. Labeling should be either typewritten text on 8-1/2 x 11 inch paper or a mockup of the labeling suitable for storage in 8-1/2 x 11 files. The draft labeling must indicate the intended colors of the final label, clear indication

36

of the front panel of the label, and the intended type sizes of the text. End use product labeling must comply specifically with the instructions in Section IV (Regulatory Position and Rationale).

E. Addresses

The required information must be submitted to the following address:

Lois Rossi
Product Manager 21
Registration Division (TS-767C)
Office of Pesticide Programs
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460

The address for submissions to the Office of Compliance Monitoring is:

Laboratory Data Integrity Program
Office of Compliance Monitoring (EN-342)
Environmental Protection Agency
401 M St., SW
Washington, D.C. 20460.

APPENDIX I

DATA APPENDICES

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TGUIDE-1

GUIDE TO TABLES

Tables A and B contain listings of data requirements for the pesticides covered by this Registration Standard.

Table A contains generic data requirements that apply to the pesticide in all products, including data requirements for which a "typical formulation" is the test substance.

Table B contains product-specific data requirements that apply only to a manufacturing use product.

The data tables are generally organized according to the following format:

1. Data Requirement (Column 1). The data requirements are listed in the order in which they appear in 40 CFR Part 158. The reference numbers accompanying each test refer to the test protocols set out in the Pesticide Assessment Guidelines, which are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161.

2. Test Substance (Column 2). This column lists the composition of the test substance required to be used for the test, as follows:

TGAI = Technical grade of the active ingredient
PAI = Pure active ingredient
PAIRA = Pure active ingredient, radio labeled
TEP = Typical end use formulation
MP = Manufacturing use product
EP = End use product

Any other test substances, such as metabolites, will be specifically named in Column 2 or in footnotes to the table.

3. Use pattern (Column 3). This column indicates the use patterns to which the data requirement applies. Use patterns are the same as those given in 40 CFR Part 158. The following letter designations are used for the given use patterns:

A = Terrestrial, food
B = Terrestrial, non-food
C = Aquatic, food
D = Aquatic, non-food
E = Greenhouse, food
F = Greenhouse, non-food
G = Forestry
H = Domestic outdoor
I = Indoor

Any other designations will be defined in a footnote to the table.

4. Does EPA have data? (Column 4). This column indicates one of three answers:

YES - EPA has data in its files that satisfy this data requirement. These data may be cited by other registrants in accordance with data compensation requirements of Part 152, Subpart E.

PARTIALLY - EPA has some data in its files, but such data do not fully satisfy the data requirement. In some cases, the Agency may possess data on one of two required species, or may possess data on one test substance but not all. The term may also indicate that the data available to EPA are incomplete. In this case, when the data are clarified, or additional details of the testing submitted by the original data submitter, the data may be determined to be acceptable. If this is the case, a footnote to the table will usually say so.

NO - EPA either possesses no data which are sufficient to fulfill the data requirement, or the data which EPA does possess are flawed scientifically in a manner that cannot be remedied by clarification or additional information.

5. Bibliographic citation (Column 5). If the Agency has acceptable data in its files, this column lists the identifying number of each study. This normally is the Master Record Identification (MRID) number, but may be a GS number if no MRID number has been assigned. Refer to the Bibliography Appendices for a complete citation of the study.

6. Must additional data be submitted? (Column 6). This column indicates whether the data must be submitted to the Agency. If column 3 indicates that the Agency already has data, this column will usually indicate NO. If column 3 indicates that the Agency has only partial data or no data, this column will usually indicate YES. In some cases, even though the Agency does not have the data, EPA will not require its submission because of the unique characteristics of the chemical; because data on another chemical can be used to fulfill the data requirement; or because the data requirement has been waived or reserved. Any such unusual situations will be explained in a footnote to the table.

7. Timeframe for submission (Column 7). If column 5 requires that data be submitted, this column indicates when the data are to be submitted, based on the issuance date of the Registration Standard. The timeframes are those established either as a result of a previous Data Call-In letter, or standardized timeframes established by PR Notice 85-5 (August 22, 1985).

8. Footnotes (at the end of each table). Self-explanatory.

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.120 Product Chemistry						
Product Identity						
61-1 - Product Identity and Disclosure of Ingredients	CTM	All	No	---	Yes[4]/	6 Months
61-2 - Description of Beginning Materials and Manufacturing Process	CTM	All	No	---	Yes[5]/	6 Months
61-3 - Discussion of Formation of Impurities	CTM	All	No	---	Yes[6]/	6 Months
Analysis and Certification of Product Ingredients						
62-1 - Preliminary Analysis	CTM	All	No	---	No	
62-2 - Certification of Products Ingredients	CTM	All	No	---	No	
62-3 - Analytical Methods to Verify Certified Limits	CTM	All	No	---	No	
Physical and Chemical Characteristics						
63-2 - Color	CTM	All	No	---	Yes	6 Months
63-3 - Physical State	CTM	All	No	---	Yes	6 Months
63-4 - Odor	CTM	All	No	---	Yes	6 Months
63-5 - Melting Point (or softening, if applicable)	CTM	All	No	---	Yes	6 Months
63-6 - Boiling Point Range (if applicable)	CTM	All	No	---	Yes	6 Months

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Time Frame for Submission
§158.120 Product Chemistry (Continued)						
Physical and Chemical Characteristics (Continued)						
63-7 - Density, Bulk Density, or Specific Gravity	CTM	All	No	---	Yes	6 Months
63-8 - Solubility	CTM	All	No	---	Yes	6 Months
63-9 - Vapor Pressure	CTM	All	No	---	Yes	6 Months
63-10 - Dissociation constant	---	All	No	---	No	
63-11 - Octanol/water partition coefficient	CTM	All	No	---	Yes	6 Months
63-12 - pH	CTM	All	No	---	Yes	6 Months
63-13 - Storage Stability	---	All	No	---	No	
Other Requirements:						
64- 1 - Submittal of samples	CTM	All	No	---	Yes[7]	6 Months
- Submittal of protocol for development of CTM	---	All	No	---	Yes[1]	3 Months

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1/ Test Substance: CTM = Composite Test Material corresponding to each AWPA standard. A protocol for collecting the CTM must be submitted to and approved by the Agency prior to collection. Analyses will be required to demonstrate that the CTM is indeed composite.

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrrestrial, Non-Food; C = Aquatic, Food Crop; D = Aquatic, Non-Food; E = Greenhouse, Food Crop; F = Greenhouse, Non-Food; G = Forestry; H = Domestic Outdoor; I = Indoor.

3/ Data must be submitted within the indicated timeframes, which begin upon receipt of the Guidance Document.

4/ Identification of major components, at concentrations $\geq 0.5\%$, in each coal tar/creosote CTM.

5/ The beginning material will be coal or wood. A description of the destructive distillation process and the temperature ranges at which the various fractions are obtained will be required.

6/ The registrant must discuss all available information on the composition and toxicity of the components of the eight AWPA standard products. This discussion should include the variability in chemical composition resulting from the use of coal/wood from different geographical areas as well as different types of coal/wood. The discussion should also address the presence and variability of each of the eight classes of compounds(naphthenes, aromatic amines, etc.), identified in Sec. II.A. of this document.

7/ Composite Test Material must be made available to EPA upon request.

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING USE PRODUCTS CONTAINING COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.120 Product Chemistry						
Product Identity						
61-1 - Product Identity and Disclosure of Ingredients	MP	All	No	---	Yes[4]/	6 Months
61-2 - Description of Beginning Materials and Manufacturing Process	MP	All	No	---	Yes[5]/	6 Months
61-3 - Discussion of Formation of Impurities	MP	All	No	---	Yes[6]/	6 Months
Analysis and Certification of Product Ingredients						
62-1 - Preliminary Analysis	MP	All	No	---	No	
62-2 - Certification of Products Ingredients	MP	All	No	---	Yes[7]/	12 Months
62-3 - Analytical Methods to Verify Certified Limits	MP	All	No	---	Yes[8]/	12 Months
Physical and Chemical Characteristics						
63-2 - Color	MP	All	No	---	Yes	6 Months
63-3 - Physical State	MP	All	No	---	Yes	6 Months
63-4 - Odor	MP	All	No	---	Yes	6 Months
63-5 - Melting Point (or softening, if applicable)	MP	All	No	---	Yes	6 Months

TABLE B
PRODUCT SPECIFIC DATA REQUIREMENTS FOR MANUFACTURING USE PRODUCTS CONTAINING COAL TAR/CREOSOTE

Data Requirement	Test Substance	Use Patterns	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?	Time Frame for Submission
§158.120 Product Chemistry - continued						
Physical and Chemical Characteristics (Continued)						
63-6 - Boiling Point Range (if applicable)	MP	All	No	---	Yes	6 Months
63-7 - Density, Bulk Density, or Specific Gravity	MP	All	No	---	Yes	6 Months
63-8 - Solubility	---	All	No	---	Yes	6 Months
63-9 - Vapor Pressure	MP	All	No	---	Yes	6 Months
63-10 - Dissociation constant	---	All	No	---	Yes	6 Months
63-11 - Octanol/water partition coefficient	---	All	No	---	Yes	6 Months
63-12 - pH	---	All	No	---	No	
63-13 - Storage Stability	---	All	No	---	No	
Other Requirements:						
64- 1 - Submittal of samples	MP	All	No	---	No	

1/ Test Substance: MP = Manufacturing Use Product

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Non-Food; C = Aquatic, Food Crop; D = Aquatic, Non-Food; E = Greenhouse, Food Crop; F = Greenhouse, Non-Food; G = Forestry; H = Domestic Outdoor; I = Indoor.

§ 158.120 Product Chemistry - continued

3/ Data must be submitted within the indicated timeframes, which begin upon receipt of the Guidance Document.

4/ Identification of distillate fractions found in the MP is required. In addition, identification of inert ingredients, if any, added to the product

5/ A description of the destructive distillation of coal/wood and the points at which the distillate fractions are obtained is required. A description of the any formulation process used to make the MP.

6/ The registrant should discuss all available information on the composition and toxicity of the constituents of the MP. In particular the discussion should include the presence and variability of the eight classes of constituents identified in Sec. II.A. of this document.

7/ Each registrant must certify (1) That his product distillate ranges correspond to those identified by the Agency, and (2) To the percentages of each distillate fraction in his MP conforming to the distillation ranges.

8/ Methodology for distillation reflecting percentages and boiling ranges.

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.130 Environmental Fate						
DEGRADATION STUDIES-LAB:						
161-1 - Hydrolysis	To Be Determined	B,D,H	No	---	Yes	To Be Scheduled
Photodegradation						
161-2 - In water	To Be Determined	B,D,H	No	---	Yes	To Be Scheduled
161-3 - On soil	To Be Determined	B,D,H	No	---	Reserved	
161-4 - In Air	To Be Determined	B,D,H	No	---	Reserved	
METABOLISM STUDIES-LAB:						
162-1 - Aerobic Soil	To Be Determined	B,D,H	No	---	Yes	To Be Scheduled
162-2 - Anaerobic Soil	To Be Determined	B,D,H	No	---	Reserved	
162-3 - Anaerobic Aquatic	To Be Determined	B,D,H	No	---	Yes	To Be Scheduled
162-4 - Aerobic Aquatic	To Be Determined	B,D,H	No	---	Yes	To Be Scheduled
MOBILITY STUDIES:						
163-1 - Leaching and Adsorption/Desorption	To Be Determined	B,D,H	No	---	Yes	To Be Scheduled
163-2 - Volatility (Lab)	To Be Determined	B,D,H	No	---	Reserved	
163-3 - Volatility (Field)	To Be Determined	B,D,H	No	---	Reserved	

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]/	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.130 Environmental Fate - Continued						
DISSIPATION STUDIES-FIELD:						
164-1 - Soil	To Be Determined	B,D,H	No	—	Yes	To Be Scheduled
164-2 - Aquatic	To Be Determined	B,D,H	No	—	Yes	To Be Scheduled
164-3 - Forestry	—	B,D,H	No	—	No	
164-4 - Combination and Tank Mixes	—	B,D,H	No	—	No[4]/	
164-5 - Soil, Long-term	To Be Determined	B,D,H	No	—	Reserved	
ACCUMULATION STUDIES:						
165-1 - Rotational Crops (Confined)	—	B,D,H	No	—	No	
165-2 - Rotational Crops (Field)	—	B,D,H	No	—	No	
165-3 - Irrigated Crops	—	B,D,H	No	—	No	
165-4 - In Fish	To Be Determined	B,D,H	No	—	Yes	To Be Scheduled
165-5 - In Aquatic Non-Target Organisms	To Be Determined	B,D,H	No	—	Reserved	

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance1/	Use Patterns2/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?3/	Time Frame for Submission
§158.140 Reentry Protection						
132-1 - Foliar Dissipation	To Be Determined	B,D,H	No	---	Reserved	
132-2 - Soil Dissipation	To Be Determined	B,D,H	No	---	Reserved	
133-3 - Dermal Exposure	To Be Determined	B,D,H	No	---	Reserved	
133-4 - Inhalation Exposure	To Be Determined	B,D,H	No	---	Reserved	
§158.142 Spray Drift						
201-1 - Droplet Size Spectrum	To Be Determined	B,D,H	No	---	Reserved	
201-2 - Drift Field Evaluation	To Be Determined	B,D,H	No	---	Reserved	

1/ Selection of testing procedures and test materials are reserved until completion of the Agency evaluation of the product chemistry data and other pertinent information.
2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food Crop; D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood; G = Forestry; H = Domestic Outdoor; I = Indoor.
3/ Data must be submitted within the indicated timeframes, which begin upon receipt of the Guidance Document.
4/ Data are not currently being required for this Standard.

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance 1/	Use Patterns 2/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted? 3/	Time Frame for Submission
§158.35 - ADDITIONAL DATA REQUIREMENTS 4/						
WORKER EXPOSURE STUDIES						
Worker Exposure in wood treatment plant - ambient air in wood treatment plant - inhalation exposure - dermal exposure	TEP or MP	NA	No	N/A	Yes 5/	6 Months
Permeability of Protective Materials	Each CTM	NA	No	---	Yes 6/	12 Months
EPIDEMIOLOGY STUDIES						
-Feasibility study, including questionaire on treatment plants	TEP & MP	NA	No	---	Yes 7/	18 Months
-Work activities in treatment plants	TEP & MP	NA	No	---	Yes 8/	6 Months
-Epidemiology study	TEP & MP	NA	No	---	Reserved 9/	

1/ Test Substance: CTM = Composite Test Material corresponding to each AWPA specification. A protocol for collecting the CTM must be submitted to and approved by the Agency prior to collection. Analyses will be required to demonstrate that the CTM is indeed composite. MP = Manufacturing use product; TEP = Typical end-use product.

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrestrial, Nonfood; C = Aquatic, Food Crop; D = Aquatic, Nonfood; E = Greenhouse, Food Crop; F = Greenhouse, Nonfood; G = Forestry; H = Domestic Outdoor; I = Indoor.

3/ Data must be submitted within the indicated timeframes, which begin upon receipt of the Guidance Document.

4/ This information and data are requested under authority of Section 158.35, Paragragh (C) which allows the Agency to obtain additional data or information beyond that specified in the Guidelines.

5/ Monitoring is to be conducted using fixed station air sampling and personal dermal and inhalation exposure monitoring. Registrants should consult with the Agency before beginning study to discuss protocols and identify marker chemicals for which analysis must be done. Protocol must be submitted within 6 months from receipt of this Guidance Document.

6/ Data must be submitted regarding the permeability of various materials used for protective clothing and equipment (gloves, boots, protective garments, etc.) for each CTM. If these data are not available, then they must be generated using methods described in American Society of Testing and Materials (ASTM) 739-81 - Standard Test Method for Resistance of Protective Materials to Permeation by Hazardous Liquid Chemicals. Analytical procedures for these tests may take the form of gravimetric measurement of coal tar/creosote passing through the test materials or qualitative analysis for breakthrough products. The protective materials which must be tested include vinyl, polyvinyl chloride (PVC), neoprene, NBR (Buna-N), rubber, and polyethylene. Tests on additional materials such as VITON and TYVEK® may be required at the request of the Agency.

7/ A list of questions for registrants who own, operate or sell their product to creosote wood treatment plants is presented in Attachment II and a list of questions for registrants who operate sawmills and/or planing mills yards using untreated wood is presented in Attachment III. Registrants may either use Attachments II and/or III to provide the required personnel information or may submit the information in another format if desired. In order to complete the study by the timeframe indicated, the questionnaire should be completed in 12 months.

8/ This report must include the area in the vicinity of the cylinder door, the control room, the area adjacent to the pumps and valves, and the holding area. Activities which must be reported include all tasks preceding and including actual wood treatment through shipment. The report should estimate average hours per day, days per year and average years of activity that a worker is involved in each task. If the individual typically performs more than one work activity, it must be described. Records indicating exposure should be submitted, for example, for workers transferred to other assignments because of sensitization to creosote. The report should also include all available and relevant work logs, and the estimates of work hours should be justified by reference to these logs. The type of clothing worn, including protective gear such as gloves or respirators, must be described in detail for each work activity and should include care and maintenance of the protective gear. The number of individuals involved in each work activity must be estimated and the existence of industrial hygiene training programs or supervision must be documented.

9/ Reserved pending the submission of the preliminary study and questionnaire information.

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE ACTIVE INGREDIENTS

Date Requirement	Test Substance[1]	Use Patterns[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted[3]/	Time Frame for Submission
§158.135 Toxicology						
ACUTE TESTING:						
81-1 - Acute Oral Toxicity - Rat	P1,P2C,P2D	B,D,H	No		Yes	9 Months
81-2 - Acute Dermal Toxicity - Rabbit	P1,P2C,P2D	B,D,H	No		Yes	9 Months
81-3 - Acute Inhalation Toxicity - Rat	P1,P2C,P2D	B,D.H	No		Yes	9 Months
81-4 - Primary Eye Irritation	P1,P2C,P2D	B,D,H	No		Yes	9 Months
81-5 - Primary Dermal Irritation	P1,P2C,P2D	B,D,H	No		Yes	9 Months
81-6 - Dermal Sensitization	P1,P2C,P2D	B,D,H	No		Yes	9 Months
81-7 - Acute Delayed Neurotoxicity - Hen	---	B,D,H	No		No[4]/	
SUBCHRONIC TESTING:						
82-1 - 90-Day Feeding: - Rodent(rat) and,	---	B,D,H	No		No[5]/	
- Non-rodent (Dog)	---	B,D,H	No		No[5]/	
82-2 - 21-Day Dermal	---	B,D,H	No		No[6]/	
82-3 - 90-Day Dermal	P1,P2C,P2D	B,D,H	No		Yes	15 months
82-4 - 90-Day Inhalation: -Rat	P1,P2C,P2D	B,D,H	No		Yes	15 Months
82-5 - 90-Day Neurotoxicity: - Hen/Mammal	---	B,D,H	No		No[7]/	

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]	Use Patterns[2]	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.135 Toxicology - Continued						
CHRONIC TESTING:						
83-1 - Chronic Toxicity - 2 species: - Rodent, and	---	B,D,H	No		No[5]/	
- Non-rodent (Dog)	---	B,D,H	No		No[5]/	
83-2 - Oncogenicity Study - Mouse (preferred)	P1,P2C,P2D	B,D,H	No		Yes[8]/	50 Months
83-3 - Teratogenicity - 1 species (rat/rabbit)	P1,P2C,P2D	B,D,H	No		Yes	15 Months
83-4 - Reproduction - Rat 2-generation	---	B,D,H	No		No[5]/	
MUTAGENICITY TESTING						
84-2 - Gene Mutation (Ames Test)	P1,P2C,P2D	B,D,H	No		Yes	9 Months
84-2 - Structural Chromosomal Aberration	P1,P2C,P2D	B,D,H	No		Yes	12 Months
84-4 - Other Mechanisms of Mutagenicity	P1,P2C,P2D	B,D,H	No		Yes	12 Months
SPECIAL TESTING						
85-1 - General Metabolism	---	B,D,H	No		No[5]/	
85-2 - Domestic Animal Safety	---	B,D,H	No		No[5]/	

§158.135 Toxicology - Continued

1/ Tests must be conducted with the Composite Test Material of AWPA standard products P1, P2C and P2D.
2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrrestrial, Non-Food; C = Aquatic, Food Crop; D = Aquatic, Non-Food; E = Greenhouse, Food Crop; F = Greenhouse, Non-Food; G = Forestry; H = Domestic Outdoor; I = Indoor.
3/ Data must be submitted within the indicated timeframe, which begin upon receipt of this Guidance Document.
4/ This test is required only for compounds which are organophosphate inhibitors of cholinesterase, or related to such
5/ This study is not required under the existing use patterns.
6/ This study is not required because of the requirement for a 90-day dermal toxicity study.
7/ This study is only required for studies which have been tested positive in the acute delayed neurotoxicity test. Therefore this study is not required.
8/ Six-month Senkar mouse skin painting study.

TABLE A
GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]/	Use Pattern[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.145 Wildlife and Aquatic Organisms						
AVIAN AND MAMMALIAN TESTING						
71-1 - Avian Oral LD_{50}	CTM,P2C	B,H,D	No		Yes[4]/	9 Months
71-2 - Avian Dietary LC_{50}	---	---	No		No	
71-3 - Wild Mammal Toxicity	---		No		No	
71-4 - Avian Reproduction	---		No		No	
71-5 - Simulated and Actual Field Testing -Mammals and Birds	---		No		No	
AQUATIC ORGANISM TESTING						
72-1 - Freshwater Fish LC_{50}						
- Warmwater (bluegill)	CTM,P1,P2C	B,H,D	No		Yes	9 Months
- Coldwater (trout)	CTM,P1,P2C	B,H,D	No		Yes	9 Months
72-2 - Acute LC_{50} Freshwater -Invertebrates	CTM,P1,P2C	B,H,D	No		Yes	9 Months
72-3 - Acute LC_{50} Estuarine and Marine Organism						
- Fish	CTM,P2C,P13	D	No		Yes[5]/	9 Months
- Shrimp	CTM,P2C,P13	D	No		Yes[5]/	9 Months
- Oyster	CTM,P2C,P13	D	No		Yes[5]/	9 Months

TABLE A

GENERIC DATA REQUIREMENTS FOR COAL TAR/CREOSOTE

Data Requirement	Test Substance[1]/	Use Pattern[2]/	Does EPA Have Data?	Bibliographic Citation	Must Additional Data be Submitted?[3]/	Time Frame for Submission
§158.145 Wildlife and Aquatic Organisms - Continued						
72-4 - Fish Early Life Stage						
- Freshwater	CTM P1,P2C	D	No		Reserved[6]	
- Estuarine	CTM P13,P2C	D	No		Reserved[6]	
Aquatic Invertebrate Life-Cycle						
- Freshwater	CTM P1,P2C	D	No		Reserved[6]/	
- Estuarine	CTM P13,P2C	D	No		Reserved[6]/	
72-5 Fish Life-Cycle		D	No		Reserved[10]/	
72-6 - Aquatic Organism Accumulation		D	No		Reserved[8]/	
72-7 - Simulated or Actual Field Testing		D	No		Reserved[9]/	
72-8 - Special Test		D	No		Reserved[7]/	

1/ Tests must be conducted with the Composite Test Material of AWPA standard products P1, P2C and P13.

2/ The use patterns are coded as follows: A = Terrestrial, Food Crop; B = Terrrestrial, Non-Food; C = Aquatic, Food Crop; D = Aquatic, Non-Food; E = Greenhouse, Food Crop; F = Greenhouse, Non-Food; G = Forestry; H = Domestic Outdoor; I = Indoor.

3/ Data must be submitted within the indicated timeframe, which begin upon receipt of this Guidance Document.

4/ An acute oral LD_{50} study on a mallard duck or bobwhite quail using a sample of the AWPA P2C standard for creosote is required rather than a dietary study on bobwhite quail. A more accurate LD_{50} is likely to be derived as a dietary study would probably result in some repellancy.

5/ Testing must be conducted with AWPA standard formulations P2C and P13 recommended for use in a saltwater environment.

6/ These studies are reserved pending submission of the aquatic toxicity studies using the P1, P2C and P13 products. If the CTM is found to result in an LC_{50} less than 1.0 ppm nominal concentration to aquatic organisms, the test will be required.

7/ If the results of the acute 96-hr study indicate LC_{50} values below those residues determined to be present in water resulting from treated pilings, the test must be conducted using wood treated according to the use directions for the appropriate MUP.

i) A flow-through system should be used. Two tanks, a test tank and a "leaching" tank, should be set up and the water should circulate between the two. The first tank, containing the test organisms, should be set up as in a normal study but with a provision for recirculation. The second tank should be large, at least 200 gallons, so that waste products may be diluted to maintain good water quality. In the second tank, the treated wood should be placed in such a way as to maximize the surface area, i.e., using 1"(inch) boards spaced apart rather than using 4"x4" posts. The surface area of wood used should be 1/100th of the volume of the tank. Three replicates of each treatment group should be performed.

ii) One control tank system identical to the treatment system should be performed concurrently using, in place of the treated wood, an equal volume and surface area of untreated wood of the same species (untreated control).

iii) One control tank without wood should be established.

iv) The test material(P1,P2C, and P13) will be selected after reviewing the data from 72-1 and 72-3. The concentration of the test materials measured by an appropriate liquid chromatography method should be measured bi-weely.

iv) To insure that the water quality at the beginning of the test is the highest possible. Refer to "Methods for Acute Toxicity Tests for Fish, Macroinvertebrates and Amphibians", EPA-660/3-75-009 April, 1975. The dilution water should be assayed for P1 and P13 constituents. All other test standards and data reporting should conform to the guidelines for a fish early life-cycle stage test as set forth in EPA's Pesticide Assessment Guidelines: Subdivision E.

8/ Refer to EAB test requirements.

9/ This study is reserved pending the results of the "leaching from wood/toxicity" study.

10/ Pending the results of the presently reserved 72-4 studies.

APPENDIX II

FEASIBILITY OF A CANCER EPIDEMIOLOGY STUDY

The U.S. Environmental Protection Agency (EPA) is interested in receiving a health study of creosote wood treatment operators. To determine the feasibility of such a study we are requiring creosote wood treatment plants to provide certain information regarding employment, medical, and industrial hygiene records. In addition, we are asking for certain description information regarding the treatment plants.

EPA is aware that some coal tar/creosote registrants maintain sawmills and/or planing mills and is considering using sawmill and/or planing mill workers as a comparison group for the creosote treatment plant workers. Thus, similar information on records and descriptive information is being requested for sawmills and planing mills. In addition to sawmill and/or planing mill workers, the Agency is interested in other possible comparison groups. The major criteria for a comparison group for the kinds of studies the Agency is seeking are:

1. Similar sunlight exposure to that received by creosote treatment plant workers, and
2. A working environment that is relatively free of known chemical carcinogens.

If you have employees in other divisions or are aware of any groups of people who might be suitable for a comparison group, please describe.

____

____

Copies of questionnaires for (1) creosote treatment plants and (2) sawmills and/or planing mills are included in this package. Please note that we have included questionnaires for creosote treatment plants and sawmills and/or planing mills that are both currently operating and have closed. Please complete one "Creosote Treatment Plant Questionnaire" for each creosote treatment plant that you currently operate or have closed and one "Sawmill and/or Planing Mill Questionnaire" for each sawmill and/or planing mill that you currently operate or have closed using the appropriate questionnaire form. If you need additional copies of questionnaires please contact Lois A. Rossi at (703) 557-1900. If you do not operate or have formally operated either creosote treatment plants or sawmills and/or planing mills, a response indicating such is required.

DESCRIPTIVE INFORMATION

1. Company name: ______________________________

   Name of local facility: ______________________________

   Local address: ______________________________

   ____

   ____

   Name(s) and address(es) of union(s) representing employees:

   a. ______________________________

   ____

   b. ______________________________

   ____

   c. ______________________________

   ____

2. What year did the plant begin operation? __________

3. If plant was closed for any period of time, indicate when and why.

	Years Closed	Reason
a.	__________	______________________________
b.	__________	______________________________

4. If the plant has changed ownership, give the name(s) and address(es) of previous owner(s) and the year(s) that ownership changed:

	Name	Address	Year Ownership Changed
a.	______________	______________________	__________
	______________	______________________	
		______________________	

	Name	Address	Year Ownership Changed
b.	________________	______________________________	____________
	________________	______________________________	
		______________________________	

5. For the following years, estimate how much creosote, in pounds, was used. (If for any particular year, the number of pounds is unknown or response is not applicable, so state.)

Year	Pounds of Creosote
Current	____________
1980	____________
1975	____________
1970	____________
1965	____________

6. Have any preservatives other than creosote ever been used?

☐ No
☐ Yes If Yes, name other wood preservatives used and the time period (month/year) during which they were used.

	Wood Preservative	Year(s) Used
a.	________________	from _____/19___ to _____/19___
b.	________________	from _____/19___ to _____/19___
c.	________________	from _____/19___ to _____/19___
d.	________________	from _____/19___ to _____/19___
e.	________________	from _____/19___ to _____/19___

7. Is/Was pressure treatment used at this plant?

☐ No
☐ Yes If Yes, answer both a and b below.

a. List the time period (month/year) during which pressure treatment was used.

(1) from _____/19___ to _____/19___
(2) from _____/19___ to _____/19___
(3) from _____/19___ to _____/19___

b. State the number of treatment cylinders at the plant for the following years. (If the number of cylinders for any particular year is unknown or response is not applicable, so state.)

Number of Cylinders

(1) 1984 ____________
(2) 1980 ____________
(3) 1970 ____________
(4) 1960 ____________
(5) 1950 ____________
(6) 1940 ____________

8. Is/Was non-pressure treatment used at this plant?

☐ No
☐ Yes If Yes, indicate the time period (month/year) during which non-pressure treatment was used.

a. from ______/19____ to ______/19____

b. from ______/19____ to ______/19____

c. from ______/19____ to ______/19____

9. How many people do you currently employ? ____________

10. Has the size of the workforce changed substantially since the plant opened?

☐ No
☐ Don't know
☐ Yes If Yes, how has it changed? ______________________________

____

11. How many current employees are:

a. Under 30 years of age? ______
b. Over 50 years of age? ______
c. Male? ______

12. What is the average turnover rate of workers per year? ______ percent.

13. Has the turnover rate changed since the plant opened?

☐ No
☐ Don't know
☐ Yes If Yes, how has it changed? ______________________________

____

14. How many employees work in the following areas?

Work Area	Number of Employees
a. Production	
b. Maintenance	
c. Administration	
d. Other	

15. What percent of current employees are:

a. White? _____ percent
b. Black? _____ percent
c. Hispanic American? _____ percent
d. Oriental? _____ percent
e. Other? _____ percent

16. Have these percentages by race/ethnic background (Question 15) changed significantly over the years this plant has been in operation?

☐ No
☐ Don't know
☐ Yes If Yes, indicate how they have changed. ____________________

____

17. Approximately what percent of employees at the plant are exposed to creosote in the plant operating environment (as opposed to working almost exclusively in an office)?

_______ percent

18. Of those employees who work with creosote, how much of their average workday is spent outdoors?

☐ Less than half their workday.
☐ Approximately half their workday.
☐ More than half their workday.

19. How many of the workers that you currently employ have worked at your plant for:

a. Less than 2 years? _____
b. 2-5 years? _____
c. 6-10 years? _____
d. More than 10 years? _____

20. Plant personnel who could be contacted by the U.S. Environmental Protection Agency regarding this survey:

________________________	________________	( )-__________
Main contact - Name	Title	Phone number
________________________	________________	( )-__________
Personnel and/or Benefits Records Manager - Name	Title	Phone number
________________________	________________	( )-__________
Data Processing - Name	Title	Phone number

PAYROLL RECORDS/ACTIVE EMPLOYEES

The following questions are specifically about payroll records.

1. Are payroll records stored in a computer file (e.g., on tape or disk)?

   ☐ No
   ☐ Yes If Yes, what kind of computer do you have?

	Model
☐ Portable (e.g., Radio Shack Model 100)	________
☐ Transportable (e.g., Osbourne, Kaypro, Compaq)	________
☐ Dedicated Word Processor (e.g., Lanier, IBM displaywriter)	________
☐ Micro (e.g., Apple, IBM PC)	________
☐ Mini (e.g., PDP-11)	________
☐ Super-mini (e.g., VAX, IBM 4341)	________
☐ Main Frame (e.g., DEC System 10, IBM 3033)	________
☐ Class VI Supercomputer (e.g., CRAY, Cyber)	________
☐ Other (Please specify) ____________________________	

2. Which of the following items are included on computer and/or hard copy (paper) payroll records? Check all that apply.

Computer Record	Paper Record	Items
☐	☐	Name
☐	☐	Social security number
☐	☐	Birthdate
☐	☐	Date of hire
☐	☐	Current job title
☐	☐	Current job code
☐	☐	Type of work (maintenance, production, administration, etc.)
☐	☐	Current work location (shop, department, etc.)
☐	☐	Previous job titles
☐	☐	Employee number

3. If a worker is terminated (retired, discharged, etc.), is his record eventually destroyed or deleted from the file?

   ☐ No
   ☐ Yes If Yes, how long, on the average, is the record retained before being destroyed? ________

4. Are records on current employees sent to a central repository at periodic intervals (e.g., corporate headquarters)?

[ ] No
[ ] Yes If Yes, how many times per year are records sent to a central repository? ________ times per year

PLEASE ATTACH A BLANK COPY OF YOUR PAYROLL RECORD FORM AND, IF APPLICABLE, THE FORM USED TO GENERATE A NEW COMPUTER-BASED PAYROLL RECORD.

PERSONNEL RECORDS/ACTIVE AND TERMINATED

The following questions concern what is done with personnel records under different circumstances. The questions are repetitive, but please provide answers to all of the questions even if the responses are the same.

1. In what form are personnel records kept? Check all that apply.

   ☐ Card files
   ☐ Paper files (e.g., 8 1/2 x 11 inch file folders)
   ☐ Wheel file
   ☐ Microfilm
   ☐ Computer files
   ☐ Other files, specify type ________________________________

2. How are personnel records on active employees organized (e.g., alphabetically by name, by department, etc.).

   ____

3. If personnel files are NOT on computer, please answer this question.

   Are you planning to convert to a computer system?

   ☐ No
   ☐ Yes If Yes, when are you planning the conversion? ____________

4. Which of the following items are recorded in personnel records? Please check all items that apply.

   ☐ Name
   ☐ Social security number
   ☐ Birthdate
   ☐ Birthplace
   ☐ Race
   ☐ Sex
   ☐ Father's name
   ☐ Mother's maiden name
   ☐ Spouse's and children's names and addresses
   ☐ Date of hire
   ☐ Date of termination
   ☐ Reason for termination (e.g., retired, disabled, discharged, died)
   ☐ Work type (administrative, production, maintenance)
   ☐ Work location
   ☐ Current job title
   ☐ Any previous job title(s) with this plant
   ☐ Date of job title changes
   ☐ Residence address
   ☐ Employee number

5. Have personnel records ever been destroyed by accident (e.g., fire, flood)?

☐ No
☐ Yes If Yes, please describe the records destroyed. ____________________

____

6. Do you retain records on former employees?

☐ No
☐ Yes If Yes, answer a and b below.

a. Estimate the approximate number of records you have on former employees. _______

b. Estimate the approximate number of retired workers who are receiving benefits. ______

Questions 7-12 refer to personnel records of former employees.

7. Retired Employees

a. What happens to the personnel records of an employee who retires? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Stored in a separate file of retired employees
☐ Other ____

b. How are records on retired employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of retirement
☐ Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of retired employees ever destroyed?

☐ No
☐ Yes If Yes, how long are they retained before being destroyed?
______ years

e. If a retired employee dies, is a copy of the death certificate obtained?

☐ No
☐ Yes If Yes, where is the death certificate filed? ____________________

____

8. Employees Deceased While Employed

a. What happens to the personnel records of an employee who dies while still employed? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How are records on deceased employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of death
☐ Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of deceased employees ever destroyed?

☐ No
☐ Yes If Yes, where is the death certificate filed? ____________________

9. Employees Who Voluntarily Terminate Employment

a. What happens to the personnel records of an employee who terminates voluntarily? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How are records on terminated employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of termination of employment
☐ Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of employees who terminate voluntarily ever destroyed?

☐ No
☐ Yes If Yes, how long are they retained before being destroyed?

_______ years

10. Discharged Employees

a. What happens to the personnel records of an employee who is discharged? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ______________________________________

b. How are records on discharged employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of discharge
☐ Other ______________________________________

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of discharged employees ever destroyed?

☐ No
☐ Yes If Yes, how long are they retained before being destroyed?
_______ years

11. Employees Who Are Laid Off

a. What happens to the personnel records of an employee who is laid off? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ______________________________________

b. How are records on employees who are laid off organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year the employee was laid off
[ ] Other ______________________________

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of employees who are laid off ever destroyed?

[ ] No
[ ] Yes If Yes, how long are they retained before being destroyed?
_______ years

12. Disabled Employees

a. What happens to the personnel records of an employee who is disabled? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ______________________________

b. How are records on disabled employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year that employment ended
[ ] Other ______________________________

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of disabled employees ever destroyed?

[ ] No
[ ] Yes If Yes, how long are they retained before being destroyed?
_______ years

PLEASE ATTACH A BLANK COPY OF YOUR PERSONNEL RECORD FORM TO THIS QUESTIONNAIRE

EMPLOYMENT APPLICATIONS
(for those who have been hired)

1. In what form are these employment applications kept?

☐ Card file
☐ Paper file (e.g., 8 1/2 x 11-inch file folder)
☐ Wheel file
☐ Microfilm
☐ Computer file
☐ Other files, specify type ______________________________

2. Which of the following items are on employment applications? (Check all that apply.)

☐ Name
☐ Social security number
☐ Birthdate
☐ Residence address
☐ Previous work history

3. Where are these employment applications stored?

☐ Personnel files
☐ Separate file of applications
☐ Other ______________________________

4. Are the employment applications of former workers ever destroyed?

☐ No
☐ Yes If Yes, how long are they kept? ______________________________

MEDICAL RECORDS

1. Do you give pre-employment physical examinations?

   ☐ No
   ☐ Yes If Yes, answer both a and b below.

   a. When did you begin this practice? ______________

   b. Where are the examinations given?

      ☐ on-site clinic
      ☐ off-site clinic
      ☐ on and off-site clinics

2. Are medical records of employees retained at the plant?

   ☐ No
   ☐ Yes

3. Are medical records ever destroyed?

   ☐ No
   ☐ Yes If Yes, how long are they retained before being destroyed?
   _______ years

4. Do you regularly collect smoking history for the medical record?

   ☐ No
   ☐ Yes

5. What types of medical exams do you regularly conduct?

   ☐ Hearing assessment
   ☐ Pulmonary function
   ☐ General physical
   ☐ Other ____

6. How many full-time equivalent (FTE) medical staff do you employ?

   FTE Medical Staff

   a. Physicians ______
   b. Nurses ______
   c. Technicians ______

PLEASE ATTACH A BLANK COPY OF YOUR PRE-EMPLOYMENT EXAMINATION FORM

INDUSTRIAL HYGIENE QUESTIONS

1. Do you have one or more industrial hygiene professionals at this plant?

   ☐ No
   ☐ Yes If Yes, please furnish the name and telephone number of the supervisor or director of industrial hygiene.

   ____________________ Name
   (   )-____________________ Phone number

2. Does a corporate hygienist provide service and/or consultations at your facility?

   ☐ No
   ☐ Yes

3. Do you have a part-time or collateral duty person who does industrial hygiene at your facility?

   ☐ No
   ☐ Yes If Yes, please furnish his or her name and telephone number.

   ____________________ Name
   (   )-____________________ Phone number

4. Does anyone else provide industrial hygiene consultation?

   ☐ No
   ☐ Yes If Yes, who? ______________________________

5. Do you measure workplace exposures to chemical agents at this plant?

   ☐ No
   ☐ Yes

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS.

Attachment C-2

QUESTIONNAIRE FOR CREOSOTE TREATMENT PLANTS THAT HAVE CLOSED

The U.S. Environmental Protection Agency is interested in conducting a health survey of current and former creosote treatment workers. The purpose of this questionnaire is to determine what kinds of employment, medical, and industrial hygiene records still exist for creosote treatment plants that have been closed and in what format such records were kept. Employee records to be considered are those for salaried and hourly employees. In addition, we are interested in certain descriptive information on the plant and the makeup of the workforce during the operation of the plant.

We recognize that record-keeping systems vary from plant to plant. This survey is not intended to evaluate specific company systems; rather, it is intended to see how individual systems can be integrated to evaluate the health of workers engaged or formerly engaged in creosote wood treatment.

For your convenience, this questionnaire is divided into six sections. These are:

1. Descriptive information
2. Payroll records
3. Personnel records
4. Employment applications
5. Medical records
6. Industrial hygiene

If additional space is needed in answering any of the questions, please continue on the back of the page or use blank sheets, specifying the question by number and letter.

We welcome your comments. You may write them next to specific questions or on separate pages. Please feel free to call ______________________________ at (   )-______________________________ if you have any questions.

DESCRIPTIVE INFORMATION

1. Company name: ______________________________

   Name of local facility: ______________________________

   Local address: ______________________________

   ____

   ____

   Name(s) and address(es) of union(s) that represented your employees:

   a. ______________________________________

   ____

   b. ______________________________________

   ____

   c. ______________________________________

   ____

2. What year did the plant begin operation? __________

3. What year did it close? __________

4. If the plant was closed for any period of time prior to its final closing, indicate when and why.

	Years Closed	Reason
a.	__________	______________________________
b.	__________	______________________________

5. If the plant changed ownership at any time in its history, give the name(s) and address(es) of previous owner(s) and the year(s) that ownership changed:

	Name	Address	Year Ownership Changed
a.	______________	______________________	__________
	______________	______________________	
		______________________	

	Name	Address	Year Ownership Changed
b.	____________	____________________	__________
	____________	____________________	
		____________________	

6. For the following years, estimate how much creosote, in pounds, was used. (If for any particular year the number of pounds is unknown or response is not applicable, so state.)

	Year	Pounds of Creosote
a. Last year of operation	_____	__________
b. Five years before plant closed	_____	__________
c. Ten years before plant closed	_____	__________
d. Fifteen years before plant closed	_____	__________
e. Twenty years before plant closed	_____	__________

7. Were any preservatives other than creosote ever used at the plant?

[ ] No
[ ] Yes If Yes, name other wood preservatives used and the time period (month/year) during which they were used.

	Wood Preservative	Year(s) Used
a.	______________	from _____/19___ to _____/19___
b.	______________	from _____/19___ to _____/19___
c.	______________	from _____/19___ to _____/19___
d.	______________	from _____/19___ to _____/19___
e.	______________	from _____/19___ to _____/19___

8. Was pressure treatment used at this plant?

[ ] No
[ ] Yes If Yes, answer both a and b below.

a. List the time period (month/year) during which pressure treatment was used.

(1) from _____/19___ to _____/19___

(2) from _____/19___ to _____/19___

(3) from _____/19___ to _____/19___

b. State the number of treatment cylinders at the plant for the following years. (If the number of cylinders for any particular year is unknown or response is not applicable, so state.)

	Year	Number of Cylinders
(1) Last year of operation		
(2) Five years before plant closed		
(3) Ten years before plant closed		
(4) Fifteen years before plant closed		
(5) Twenty years before plant closed		

9. Was non-pressure treatment used at this plant?

☐ No
☐ Yes If Yes, indicate the time period(s) (month/year) during which non-pressure treatment was used.

a. from ______/19____ to ______/19____

b. from ______/19____ to ______/19____

c. from ______/19____ to ______/19____

10. How many people were employed at the plant one year before it closed? __________

11. Did the size of the workforce change substantially over the period of time that the plant was operating?

☐ No
☐ Don't know
☐ Yes If Yes, how did it change? ____

____

12. One year before the plant closed, how many employees were:

a. Under 30 years of age? ______
b. Over 50 years of age? ______
c. Male? ______

13. What was the average turnover rate of workers during the last five years of the plant's operation? _______ percent.

14. Did the turnover rate change over the period of time that the plant was operating?

☐ No
☐ Don't know
☐ Yes If Yes, how did it change? ______________________________

____

15. One year before the plant closed, how many employees were working in the following areas?

Work Area	Number of Employees
a. Production	______________
b. Maintenance	______________
c. Administration	______________
d. Other	______________

16. One year before the plant closed, approximately what percent of the employees were:

a. White ______ percent
b. Black ______ percent
c. Hispanic American ______ percent
d. Oriental ______ percent
e. Other ______ percent

17. Did these percentages by race/ethnic background (Question 15) change significantly over the years the plant was in operation?

☐ No
☐ Don't know
☐ Yes If Yes, indicate how they changed. ______________________________

____

18. Approximately what percent of employees at the plant were exposed to creosote in the plant operating environment (as opposed to working almost exclusively in an office)?

_______ percent

19. Of those employees who worked with creosote, how much of their average workday was spent outdoors?

- ☐ Less than half their workday.
- ☐ Approximately half their workday.
- ☐ More than half their workday.

20. How many of the workers who were employed at that plant one year before it closed had worked for:

a. Less than 2 years? ______
b. 2-5 years? ______
c. 6-10 years? ______
d. More than 10 years? ______

21. Former plant personnel who could be contacted by the U.S. Environmental Protection Agency regarding this survey:

____________________	____________________	(___)-__________
Main contact - Name	Title	Phone number
____________________	____________________	(___)-__________
Personnel and/or Benefits Records Manager - Name	Title	Phone number
____________________	____________________	(___)-__________
Data Processing - Name	Title	Phone number
____________________	____________________	(___)-__________
Industrial Hygiene - Name	Title	Phone number

PAYROLL RECORDS

The following questions are specifically about payroll records.

1. Were payroll records stored in a computer file (e.g., on tape or disk)?

☐ No
☐ Yes If Yes, what kind of computer did you use?

Model

☐ Portable (e.g., Radio Shack Model 100) . . . . ______
☐ Transportable (e.g., Osbourne, Kaypro, Compaq) . . . . . . ______
☐ Dedicated Word Processor (e.g., Lanier, IBM displaywriter) ______
☐ Micro (e.g., Apple, IBM PC) . . . . ______
☐ Mini (e.g., PDP-11) . . . . ______
☐ Super-mini (e.g., VAX, IBM 4341) . . . . ______
☐ Main Frame (e.g., DEC System 10, IBM 3033) . . . . ______
☐ Class VI Supercomputer (e.g., CRAY, Cyber) . . . . ______
☐ Other (Please specify) ____________________

2. Which of the following items were included on computer are/or hard copy (paper) payroll records? Check all that apply.

Computer Record	Paper Record	Items
☐	☐	Name
☐	☐	Social security number
☐	☐	Birthdate
☐	☐	Date of hire
☐	☐	Job title
☐	☐	Job code
☐	☐	Type of work (maintenance, production, administration, etc.)
☐	☐	Work location (shop, department, etc.)
☐	☐	Previous job titles
☐	☐	Employee number

3. If a worker was terminated (retired, discharged, etc.) while the facility was in operation, was his record eventually destroyed or deleted from the file?

☐ No
☐ Yes If Yes, how long, on the average, was the record retained before being destroyed? ________

4. Were payroll records on employees sent to a central repository (e.g., corporate headquarters) at periodic intervals when the facility was in operation?

   ☐ No
   ☐ Yes If Yes, answer a and b below.

   a. How many times per year were records sent to a central repository? __________ times per year

   b. Where is/was the central repository? ____________________

5. After the plant closed payroll records were:

   ☐ Kept at the facility
   ☐ Forwarded to a central repository
   ☐ Destroyed
   ☐ Other ________________________

PLEASE ATTACH A BLANK COPY OF YOUR PAYROLL RECORD FORM

PERSONNEL RECORDS

The following questions concern what was done with personnel records under different circumstances. The questions are repetitive, but please provide answers to all of the questions even if the responses are the same.

1. In what form were personnel records kept? Check all that apply.

   ☐ Card files
   ☐ Paper files (e.g., 8 1/2 x 11 inch file folders)
   ☐ Wheel file
   ☐ Microfilm
   ☐ Computer files
   ☐ Other files, specify type ______________________________

2. How were personnel records on active employees organized (e.g., alphabetically by name, by department, etc.)?

   ____

3. Which of the following items were included in personnel records? Please check all items that apply.

   ☐ Name
   ☐ Social security number
   ☐ Birthdate
   ☐ Birthplace
   ☐ Race
   ☐ Sex
   ☐ Father's name
   ☐ Mother's maiden name
   ☐ Spouse's and children's names and addresses
   ☐ Date of hire
   ☐ Date of termination
   ☐ Reason for termination (e.g., retired, disabled, discharged, died)
   ☐ Work type (administrative, production, maintenance)
   ☐ Work location
   ☐ Current job title
   ☐ Any previous job title(s) with this plant
   ☐ Date of job title changes
   ☐ Residence address
   ☐ Employee number

4. Were any personnel records ever destroyed by accident (e.g., fire, flood)?

   ☐ No
   ☐ Yes If Yes, please describe the records destroyed. ____________________

   ____

5. Did you retain personnel records on former employees?

   ☐ No
   ☐ Yes If Yes, answer a and b below.

   a. Estimate the approximate number of records you have on former employees. _______

   b. Estimate the approximate number of retired workers who are receiving benefits. ______

   c. Where are the personnel records on former employees maintained?

   ____

Questions 7-12 refer to personnel records of former employees. If you answered no to question 5, please proceed to the section on medical records. Otherwise, continue.

6. Retired Employees

   a. What happened to the personnel records of an employee who retired from the facility while it was in operation? (Check all that apply.)

      ☐ Filed with the personnel records of current employees
      ☐ Stored in a separate file of former employees
      ☐ Stored in a separate file of retired employees
      ☐ Other ____

   b. How were records on retired employees organized?

      ☐ Alphabetically by name
      ☐ By department and alphabetically by name
      ☐ By year of retirement
      ☐ Other ____

   c. Were personnel records of retired employees ever destroyed while the facility was in operation?

      ☐ No
      ☐ Yes If Yes, how long were they retained before being destroyed? ______ years

   d. If a retired employee died, was a copy of the death certificate obtained?

      ☐ No
      ☐ Yes If Yes, where was the death certificate filed? ______________

      ____

7. Employees Deceased While Employed

a. What happened to the personnel records of an employee who died while still employed? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ______________________________

b. How were records on deceased employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year of death
[ ] Other ______________________________

c. Were personnel records of deceased employees ever destroyed while the facility was in operation?

[ ] No
[ ] Yes If Yes, where was the death certificate filed? __________

8. Employees Who Voluntarily Terminated Employment

a. What happened to the personnel records of an employee who terminated voluntarily? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ______________________________

b. How were records on terminated employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year of termination of employment
[ ] Other ______________________________

c. Were personnel records of employees who terminated voluntarily ever destroyed?

[ ] No
[ ] Yes If Yes, how long were they retained before being destroyed?

_______ years

9. Discharged Employees

a. What happened to the personnel records of an employee who was discharged? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ______________________________

b. How were records on discharged employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of discharge
☐ Other ______________________________

c. Were personnel records of discharged employees ever destroyed while the facility was in operation?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?
_______ years

10. Employees Who Were Laid Off

a. What happened to the personnel records of employees who were laid off? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ______________________________

b. How were records on employees who were laid off organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year the employee was laid off
☐ Other ______________________________

c. Were personnel records of employees who were laid off ever destroyed while the plant was in operation?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?
_______ years

11. Disabled Employees

a. What happened to the personnel records of an employee who was disabled while employed? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ______________________________

b. How were records on disabled employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year that employment ended
[ ] Other ______________________________

c. Were personnel records of disabled employees ever destroyed while the facility was in operation?

[ ] No
[ ] Yes If Yes, how long were they retained before being destroyed?
_______ years

IF POSSIBLE, PLEASE ATTACH A BLANK COPY OF THE
PERSONNEL RECORD FORM THAT YOUR FACILITY USED

EMPLOYMENT APPLICATIONS
(for those who were hired)

1. In what form were employment applications kept?

   ☐ Card file
   ☐ Paper file (e.g., 8 1/2 x 11-inch file folder)
   ☐ Wheel file
   ☐ Microfilm
   ☐ Computer file
   ☐ Other files, specify type ____________________

2. Which of the following items were on employment applications? (Check all that apply.)

   ☐ Name
   ☐ Social security number
   ☐ Birthdate
   ☐ Residence address
   ☐ Previous work history

3. Where were these employment applications stored?

   ☐ Personnel files
   ☐ Separate file of applications
   ☐ Other ____________________

4. Were the employment applications of former workers ever destroyed while the facility was in operation?

   ☐ No
   ☐ Yes If Yes, how long were they kept before being destroyed? __________

5. After the facility closed, were employment applications:

   ☐ Kept at the facility?
   ☐ Forwarded to a central repository?
   ☐ Destroyed?
   ☐ Other? ____________________

MEDICAL RECORDS

1. Did you give pre-employment physical examinations when the facility was in operation?

   ☐ No
   ☐ Yes If Yes, answer both a and b below.

   a. When did you begin this practice? ______________

   b. Where were the examinations given?

      ☐ on-site clinic
      ☐ off-site clinic
      ☐ on and off-site clinics

2. Were medical records ever destroyed while the facility was in operation?

   ☐ No
   ☐ Yes If Yes, how long were they retained before being destroyed?
   _______ years

3. Did you regularly collect smoking history for the medical record?

   ☐ No
   ☐ Yes

4. What types of medical exams did you regularly conduct?

   ☐ Hearing assessment
   ☐ Pulmonary function
   ☐ General physical
   ☐ Other ____

5. Were the medical records kept after the plant closed?

   ☐ No
   ☐ Yes

6. Are the medical records currently available?

   ☐ No
   ☐ Yes If Yes, where are they now? ______________________________

7. How many full-time equivalent (FTE) medical staff did you employ?

FTE Medical Staff

a. Physicians ______
b. Nurses ______
c. Technicians ______

IF POSSIBLE, PLEASE ATTACH A BLANK COPY OF THE PRE-EMPLOYMENT EXAMINATION FORM THAT YOUR FACILITY USED

INDUSTRIAL HYGIENE QUESTIONS

1. Did you have one or more industrial hygiene professionals at this facility?

   ☐ No
   ☐ Yes

2. Did a corporate hygienist provide service and/or consultations at your facility?

   ☐ No
   ☐ Yes

3. Did you have a part-time or collateral duty person who did industrial hygiene at your facility?

   ☐ No
   ☐ Yes

4. Did anyone else provide industrial hygiene consultation?

   ☐ No
   ☐ Yes If Yes, who? ______________________________

5. Did you measure work-place exposures to chemical agents at this plant?

   ☐ No
   ☐ Yes

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS.

ATTACHMENT III

QUESTIONNAIRE
FOR
CURRENTLY OPERATING
SAWMILLS AND PLANING MILLS

The U.S. Environmental Protection Agency is interested in a health survey of sawmill and/or planing mill workers for the purpose of comparing the health status of such workers to that of creosote treatment plant workers. The purpose of this questionnaire is to determine what kinds of employment, medical, and industrial hygiene records are available for your sawmill and/or planing mill and in what format such records currently exist. Employee records to be considered are those for salaried and hourly employees. In addition, we are interested in certain descriptive information of the mill and the makeup of the workforce.

We recognize that record-keeping systems vary from mill to mill. This survey is not intended to evaluate specific company systems; rather, it is intended to see how individual systems can be integrated for the purpose of comparing the health of workers in sawmills and/or planing mills to the health of workers in creosote wood treatment operation. (Questionnaires similar to this one have been sent to creosote treatment plant operators.)

For your convenience, this questionnaire is divided into six sections. These are:

1. Descriptive information
2. Payroll records
3. Personnel records
4. Employment applications
5. Medical records
6. Industrial hygiene

If additional space is needed in answering any of the questions, please continue on the back of the page or use blank sheets, specifying the question by number and letter.

We welcome your comments. You may write them next to specific questions or on seperate pages. Please feel free to call Lois A. Rossi at (703) 557-1900 if you have any questions.

DESCRIPTIVE INFORMATION

1. Company name: ____________ ____________

Name of local facility: ____________

Local Address: ____________

____

____

Name(s) and address(es) of union(s) representing employees:

a. ____________

____

b. ____________

____

c. ____________

____

2. What year did the sawmill and/or planing mill begin operation? ________

3. If the sawmill and/or planing mill was closed for any period of time, indicate when and why.

	Years Closed	Reason
a.		
b.		

4. If the sawmill and/or planing mill has changed ownership, give the name(s) and address(es) of previous owner(s) and the year(s) that ownership changed:

	Name	Address	Year Ownership Changed
a.			

	Name	Address	Year Ownership Changed
b.	______________	______________________	__________
	______________	______________________	
		______________________	

5. What kind of activities are done here?

☐ Sawing
☐ Planing
☐ Logging
☐ Other (please describe) ________________________________

6. Are you aware of any chemical exposure to workers?

☐ No
☐ Yes If Yes, what kind of chemical exposure?

☐ Creosote
☐ Other (please indicate) ________________________

7. How many people do you currently employ? __________

8. Has the size of the workforce changed substantially since the plant opened?

☐ No
☐ Don't know
☐ Yes If Yes, how has it changed? ________________________
____

9. How many current employees are:

a. Under 30 years of age? _____
b. Over 50 years of age? _____
c. Male? _____

10. What is the average turnover rate of workers per year? ______ percent.

11. Has the turnover rate changed since the plant opened?

☐ No
☐ Don't know
☐ Yes If Yes, how has it changed? ________________________
____

12. How many employees work in the following areas?

Work Area	Number of Employees
a. Production	____________
b. Maintenance	____________
c. Administration	____________
d. Other	____________

13. What percent of current employees are:

a. White? ______ percent
b. Black? ______ percent
c. Hispanic American? ______ percent
d. Oriental? ______ percent
e. Other? ______ percent

14. Have these percentages by race/ethnic background (Question 13) changed significantly over the years that this sawmill and/or planing mill has been in operation?

☐ No
☐ Don't know
☐ Yes If Yes, indicate how they have changed. ____________________

____

15. Approximately what percent of employees at the sawmill and/or planing mill work with the wood (as opposed to working almost exclusively in an office)?

______ percent

16. Of those employees who work with wood, how much of their average workday is spent outdoors?

☐ Less than half their workday.
☐ Approximately half their workday.
☐ More than half their workday.

17. How many of the workers that you currently employ have worked at your sawmill and/or planing mill for:

a. Less than 2 years? ______
b. 2-5 years? ______
c. 6-10 years? ______
d. More than 10 years? ______

18. Plant personnel who could be contacted by the U.S. Environmental Protection Agency regarding this survey:

________________ Main contact - Name
________________ Title
(____)-________ Phone number

________________ Personnel and/or Benefits Records Manager - Name
________________ Title
(____)-________ Phone number

________________ Data Processing - Name
________________ Title
(____)-________ Phone number

PAYROLL RECORDS/ACTIVE EMPLOYEES

The following questions are specifically about payroll records.

1. Are payroll records stored in a computer file (e.g., on tape or disk)?

☐ No
☐ Yes If Yes, what kind of computer do you have?

	Model
☐ Portable (e.g., Radio Shack Model 100)	________
☐ Transportable (e.g., Osbourne, Kaypro, Compaq)	________
☐ Dedicated Word Processor (e.g., Lanier, IBM displaywriter)	________
☐ Micro (e.g., Apple, IBM PC)	________
☐ Mini (e.g., PDP-11)	________
☐ Super-mini (e.g., VAX, IBM 4341)	________
☐ Main Frame (e.g., DEC System 10, IBM 3033)	________
☐ Class VI Supercomputer (e.g., CRAY, Cyber)	________
☐ Other (Please specify) ______________________________	

2. Which of the following items are included on computer and/or hard copy (paper) payroll records? Check all that apply.

Computer Record	Paper Record	Items
☐	☐	Name
☐	☐	Social security number
☐	☐	Birthdate
☐	☐	Date of hire
☐	☐	Current job title
☐	☐	Current job code
☐	☐	Type of work (maintenance, production, administration, etc.)
☐	☐	Current work location (shop, department, etc.)
☐	☐	Previous job titles
☐	☐	Employee number

3. If a worker is terminated (retired, discharged, etc.), is his record eventually destroyed or deleted from the file?

☐ No
☐ Yes If Yes, how long, on the average, is the record retained before being destroyed? ________

4. Are records on current employees sent to a central repository at periodic intervals (e.g., corporate headquarters)?

☐ No
☐ Yes   I Yes, how many times per year are records sent to a central repository? ________ times per year

PLEASE ATTACH A BLANK COPY OF YOUR PAYROLL RECORD FORM AND, IF APPLICABLE, THE FORM USED TO GENERATE A NEW COMPUTER-BASED PAYROLL RECORD.

PERSONNEL RECORDS/ACTIVE AND TERMINATED

The following questions concern what is done with personnel records under different circumstances. The questions are repetitive, but please provide answers to all of the questions even if the responses are the same.

1. In what form are personnel records kept? Check all that apply.

   ☐ Card files
   ☐ Paper files (e.g., 8 1/2 x 11 inch file folders)
   ☐ Wheel file
   ☐ Microfilm
   ☐ Computer files
   ☐ Other files, specify type ____

2. How are personnel records on active employees organized (e.g., alphabetically by name, by department, etc.).

   ____

3. If personnel files are NOT on computer, please answer this question.

   Are you planning to convert to a computer system?

   ☐ No
   ☐ Yes If Yes, when are you planning the conversion? _______________

4. Which of the following items are recorded in personnel records? Please check all items that apply.

   ☐ Name
   ☐ Social security number
   ☐ Birthdate
   ☐ Birthplace
   ☐ Race
   ☐ Sex
   ☐ Father's name
   ☐ Mother's maiden name
   ☐ Spouse's and children's names and addresses
   ☐ Date of hire
   ☐ Date of termination
   ☐ Reason for termination (e.g., retired, disabled, discharged, died)
   ☐ Work type (administrative, production, maintenance)
   ☐ Work location
   ☐ Current job title
   ☐ Any previous job title(s) with this plant
   ☐ Date of job title changes
   ☐ Residence address
   ☐ Employee number

5. Have personnel records ever been destroyed by accident (e.g., fire, flood)?

☐ No
☐ Yes If Yes, please describe the records destroyed. ____________________

____

6. Do you retain records on former employees?

☐ No
☐ Yes If Yes, answer a and b below.

a. Estimate the approximate number of records you have on former employees. _______

b. Estimate the approximate number of retired workers who are receiving benefits. ______

Questions 7-12 refer to personnel records of former employees.

7. Retired Employees

a. What happens to the personnel records of an employee who retires? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Stored in a separate file of retired employees
☐ Other ____

b. How are records on retired employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of retirement
☐ Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

____

.d. Are personnel records of retired employees ever destroyed?

☐ No
☐ Yes If Yes, how long are they retained before being destroyed?
______ years

e. If a retired employee dies, is a copy of the death certificate obtained?

[ ] No
[ ] Yes If Yes, where is the death certificate filed? ________________

____

8. Employees Deceased While Employed

a. What happens to the personnel records of an employee who dies while still employed? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ____

b. How are records on deceased employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year of death
[ ] Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of deceased employees ever destroyed?

[ ] No
[ ] Yes If Yes, where is the death certificate filed? ________________

9. Employees Who Voluntarily Terminate Employment

a. What happens to the personnel records of an employee who terminates voluntarily? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ____

b. How are records on terminated employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year of termination of employment
[ ] Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

______________________________ ____________________

d. Are personnel records of employees who terminate voluntarily ever destroyed?

☐ No
☐ Yes If Yes, how long are they retained before being destroyed?

______ years

10. Discharged Employees

a. What happens to the personnel records of an employee who is discharged? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How are records on discharged employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of discharge
☐ Other ____

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of discharged employees ever destroyed?

☐ No
☐ Yes If Yes, how long are they retained before being destroyed?
______ years

11. Employees Who Are Laid Off

a. What happens to the personnel records of an employee who is laid off? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How are records on employees who are laid off organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year the employee was laid off
[ ] Other ______________________________

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of employees who are laid off ever destroyed?

[ ] No
[ ] Yes If Yes, how long are they retained before being destroyed?
_______ years

12. Disabled Employees

a. What happens to the personnel records of an employee who is disabled? (Check all that apply.)

[ ] Filed with the personnel records of current employees
[ ] Stored in a separate file of former employees
[ ] Eventually destroyed
[ ] Other ______________________________

b. How are records on disabled employees organized?

[ ] Alphabetically by name
[ ] By department and alphabetically by name
[ ] By year that employment ended
[ ] Other ______________________________

c. If the personnel records are stored separately from current employee records, where are they stored?

____

d. Are personnel records of disabled employees ever destroyed?

[ ] No
[ ] Yes If Yes, how long are they retained before being destroyed?
_______ years

PLEASE ATTACH A BLANK COPY OF YOUR PERSONNEL RECORD FORM TO THIS QUESTIONNAIRE

EMPLOYMENT APPLICATIONS
(for those who have been hired)

1. In what form are these employment applications kept?

   ☐ Card file
   ☐ Paper file (e.g., 8 1/2 x 11-inch file folder)
   ☐ Wheel file
   ☐ Microfilm
   ☐ Computer file
   ☐ Other files, specify type ________________________________

2. Which of the following items are on employment applications? (Check all that apply.)

   ☐ Name
   ☐ Social security number
   ☐ Birthdate
   ☐ Residence address
   ☐ Previous work history

3. Where are these employment applications stored?

   ☐ Personnel files
   ☐ Separate file of applications
   ☐ Other ________________________________

4. Are the employment applications of former workers ever destroyed?

   ☐ No
   ☐ Yes If Yes, how long are they kept? ________________________

MEDICAL RECORDS

1. Do you give pre-employment physical examinations?

   ☐ No
   ☐ Yes If Yes, answer both a and b below.

   a. When did you begin this practice? ____________

   b. Where are the examinations given?

      ☐ on-site clinic
      ☐ off-site clinic
      ☐ on and off-site clinics

2. Are medical records of employees retained at the plant?

   ☐ No
   ☐ Yes

3. Are medical records ever destroyed?

   ☐ No
   ☐ Yes If Yes, how long are they retained before being destroyed?
   ______ years

4. Do you regularly collect smoking history for the medical record?

   ☐ No
   ☐ Yes

5. What types of medical exams do you regularly conduct?

   ☐ Hearing assessment
   ☐ Pulmonary function
   ☐ General physical
   ☐ Other ____

6. How many full-time equivalent (FTE) medical staff do you employ?

   FTE Medical Staff

   a. Physicians _____
   b. Nurses _____
   c. Technicians _____

PLEASE ATTACH A BLANK COPY OF YOUR PRE-EMPLOYMENT EXAMINATION FORM

INDUSTRIAL HYGIENE QUESTIONS

1. Do you have one or more industrial hygiene professionals at this plant?

   ☐ No
   ☐ Yes If Yes, please furnish the name and telephone number of the supervisor or director of industrial hygiene.

   Name ____________________ ( )-____________________ Phone number

2. Does a corporate hygienist provide service and/or consultations at your facility?

   ☐ No
   ☐ Yes

3. Do you have a part-time or collateral duty person who does industrial hygiene at your facility?

   ☐ No
   ☐ Yes If Yes, please furnish his or her name and telephone number.

   Name ____________________ ( )-____________________ Phone number

4. Does anyone else provide industrial hygiene consultation?

   ☐ No
   ☐ Yes If Yes, who? ______________________________

5. Do you measure workplace exposures to chemical agents at this plant?

   ☐ No
   ☐ Yes

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS.

Attachment D-2

QUESTIONNAIRE FOR SAWMILLS AND PLANING MILLS THAT HAVE CLOSED

The U.S. Environmental Protection Agency is interested in conducting a health survey of current and former sawmill and/or planing mill workers in order to compare the health status of such workers to that of creosote treatment plant workers. The purpose of this questionnaire is to determine what kinds of employment, medical, and industrial hygiene records still exist for your sawmill and/or planing mill and in what format such records were kept. Employee records to be considered are those for salaried and hourly employees. In addition, we are interested in certain descriptive information on the mill and the makeup of the workforce during the operation of the mill.

We recognize that record-keeping systems vary from mill to mill. This survey is not intended to evaluate specific company systems; rather, it is intended to see how individual systems can be integrated to compare the health of workers in sawmills and/or planing mills to the health of workers currently or formerly employed in creosote wood treatment operations. (Questionnaires similar to this one have been sent to creosote treatment plant operators.)

For your convenience, this questionnaire is divided into six sections. These are:

1. Descriptive information
2. Payroll records
3. Personnel records
4. Employment applications
5. Medical records
6. Industrial hygiene

If additional space is needed in answering any of the questions, please continue on the back of the page or use blank sheets, specifying the question by number and letter.

We welcome your comments. You may write them next to specific questions or on seperate pages. Please feel free to call Lois A. Rossi at (703) 557-1900 if you have any questions.

DESCRIPTIVE INFORMATION

1. Company name: ______________________________

Name of local facility: ______________________________

Local Address: ______________________________

____

____

Name(s) and address(es) of union(s) that represented your employees:

a. ______________________________

____

b. ______________________________

____

c. ______________________________

____

2. What year did the sawmill and/or planing mill begin operation? __________

3. What year did it close? ______________

4. If the sawmill and/or planing mill was closed for any period of time prior to its final closing, indicate when and why.

	Years Closed	Reason
a.	__________	______________________________
b.	__________	______________________________

5. If the sawmill and/or planing mill changed ownership at any time during its history, give the name(s) and address(es) of previous owner(s) and the year(s) that ownership changed:

	Name	Address	Year Ownership Changed
a.	______	______	______
	______	______	
		______	

	Name	Address	Year Ownership Changed
b.	______	______	______
	______	______	
		______	

6. What kind of activities were done here?

☐ Sawing
☐ Planing
☐ Logging
☐ Other (please describe) ______

7. Were you aware of any chemical exposure to workers?

☐ No
☐ Yes If Yes, what kind of chemical exposure?

☐ Creosote
☐ Other (please indicate) ______

8. How many people were employed at the mill one year before it closed? ______

9. Did the size of the workforce change substantially over the period of time that the mill was operating?

☐ No
☐ Don't know
☐ Yes If Yes, how did it change? ______

______

10. One year before the mill closed, how many employees were:

a. Under 30 years of age? ______
b. Over 50 years of age? ______
c. Male? ______

11. What was the average turnover rate of workers during the last five years of the mill's operation? ______ percent.

12. Did the turnover rate change during the period of time that the mill was operating?

☐ No
☐ Don't know
☐ Yes If Yes, how did it change? ________________________________

____

13. One year before the mill closed, how many employees were working in the following areas?

Work Area	Number of Employees
a. Production	____________
b. Maintenance	____________
c. Administration	____________
d. Other	____________

14. One year before the mill closed, what percent of the employees were:

a. White? ______ percent
b. Black? ______ percent
c. Hispanic American? ______ percent
d. Oriental? ______ percent
e. Other? ______ percent

15. Did these percentages by race/ethnic background (Question 14) change significantly over the years that this sawmill and/or planing mill was in operation?

☐ No
☐ Don't know
☐ Yes If Yes, indicate how they have changed. ______________________

____

16. Approximately what percent of employees at the mill worked with the wood (as opposed to working almost exclusively in an office)?

_______ percent

17. Of those employees who worked with wood, how much of their average workday was spent outdoors?

☐ Less than half their workday.
☐ Approximately half their workday.
☐ More than half their workday.

18. How many of the workers who were employed at the mill one year before it closed had worked at your mill for:

a. Less than 2 years? _______
b. 2-5 years? _______
c. 6-10 years? _______
d. More than 10 years? _______

19. Plant personnel who could be contacted by the U.S. Environmental Protection Agency regarding this survey:

_______________	_______________	(___)-_______________
Main contact - Name	Title	Phone number
_______________	_______________	(___)-_______________
Personnel and/or Benefits Records Manager - Name	Title	Phone number
_______________	_______________	(___)-_______________
Data Processing - Name	Title	Phone number
_______________	_______________	(___)-_______________
Industrial Hygiene - Name	Title	Phone number

PAYROLL RECORDS

The following questions are specifically about payroll records.

1. Were payroll records stored in a computer file (e.g., on tape or disk)?

☐ No
☐ Yes If Yes, what kind of computer did you use?

	Model
☐ Portable (e.g., Radio Shack Model 100)	________
☐ Transportable (e.g., Osbourne, Kaypro, Compaq)	________
☐ Dedicated Word Processor (e.g., Lanier, IBM displaywriter)	________
☐ Micro (e.g., Apple, IBM PC)	________
☐ Mini (e.g., PDP-11)	________
☐ Super-mini (e.g., VAX, IBM 4341)	________
☐ Main Frame (e.g., DEC System 10, IBM 3033)	________
☐ Class VI Supercomputer (e.g., CRAY, Cyber)	________

☐ Other (Please specify) ______________________________

2. Which of the following items were included on computer are/or hard copy (paper) payroll records? Check all that apply.

Computer Record	Paper Record	Items
☐	☐	Name
☐	☐	Social security number
☐	☐	Birthdate
☐	☐	Date of hire
☐	☐	Job title
☐	☐	Job code
☐	☐	Type of work (maintenance, production, administration, etc.)
☐	☐	Work location (shop, department, etc.)
☐	☐	Previous job titles
☐	☐	Employee number

3. If a worker was terminated (retired, discharged, etc.) while the facility was in operation, was his record eventually destroyed or deleted from the file?

☐ No
☐ Yes If Yes, how long, on the average, was the record retained before being destroyed? ________

4. Were payroll records on employees sent to a central repository (e.g., corporate headquarters) at periodic intervals when the facility was in operation?

   ☐ No
   ☐ Yes If Yes, answer a and b below.

   a. How many times per year were records sent to a central repository? __________ times per year

   b. Where is/was the central repository? ______________________

5. After the plant closed payroll records were:

   ☐ Kept at the facility
   ☐ Forwarded to a central repository
   ☐ Destroyed
   ☐ Other __________________________

PLEASE ATTACH A BLANK COPY OF YOUR PAYROLL RECORD FORM

PERSONNEL RECORDS

The following questions concern what was done with personnel records under different circumstances. The questions are repetitive, but please provide answers to all of the questions even if the responses are the same.

1. In what form were personnel records kept? Check all that apply.

☐ Card files
☐ Paper files (e.g., 8 1/2 x 11 inch file folders)
☐ Wheel file
☐ Microfilm
☐ Computer files
☐ Other files, specify type ______________________________

2. How were personnel records on active employees organized (e.g., alphabetically by name, by department, etc.)?

____

3. Which of the following items were included in personnel records? Please check all items that apply.

☐ Name
☐ Social security number
☐ Birthdate
☐ Birthplace
☐ Race
☐ Sex
☐ Father's name
☐ Mother's maiden name
☐ Spouse's and children's names and addresses
☐ Date of hire
☐ Date of termination
☐ Reason for termination (e.g., retired, disabled, discharged, died)
☐ Work type (administrative, production, maintenance)
☐ Work location
☐ Current job title
☐ Any previous job title(s) with this plant
☐ Date of job title changes
☐ Residence address
☐ Employee number

4. Were any personnel records ever destroyed by accident (e.g., fire, flood)?

☐ No
☐ Yes If Yes, please describe the records destroyed. ______________

____

5. Did you retain personnel records on former employees?

☐ No
☐ Yes If Yes, answer a and b below.

a. Estimate the approximate number of records you have on former employees. ________

b. Estimate the approximate number of retired workers who are receiving benefits. _______

c. Where are the personnel records on former employees maintained?

____

Questions 7-12 refer to personnel records of former employees. If you answered no to question 5, please proceed to the section on medical records. Otherwise, continue.

6. Retired Employees

a. What happened to the personnel records of an employee who retired from the facility while it was in operation? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Stored in a separate file of retired emplovees
☐ Other ____

b. How were records on retired employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of retirement
☐ Other ____

c. Were personnel records of retired employees ever destroyed while the facility was in operation?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?
_______ years

d. If a retired employee died, was a copy of the death certificate obtained?

☐ No
☐ Yes If Yes, where was the death certificate filed? ________________

____

7. Employees Deceased While Employed

a. What happened to the personnel records of an employee who died while still employed? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ______________________________

b. How were records on deceased employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of death
☐ Other ______________________________

c. Were personnel records of deceased employees ever destroyed while the facility was in operation?

☐ No
☐ Yes If Yes, where was the death certificate filed? ____________

8. Employees Who Voluntarily Terminated Employment

a. What happened to the personnel records of an employee who terminated voluntarily? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ______________________________

b. How were records on terminated employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of termination of employment
☐ Other ______________________________

c. Were personnel records of employees who terminated voluntarily ever destroyed?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?

_______ years

9. Discharged Employees

a. What happened to the personnel records of an employee who was discharged? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How were records on discharged employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year of discharge
☐ Other ____

c. Were personnel records of discharged employees ever destroyed while the facility was in operation?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?
_______ years

10. Employees Who Were Laid Off

a. What happened to the personnel records of employees who were laid off? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How were records on employees who were laid off organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year the employee was laid off
☐ Other ____

c. Were personnel records of employees who were laid off ever destroyed while the plant was in operation?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?
_______ years

11. Disabled Employees

a. What happened to the personnel records of an employee who was disabled while employed? (Check all that apply.)

☐ Filed with the personnel records of current employees
☐ Stored in a separate file of former employees
☐ Eventually destroyed
☐ Other ____

b. How were records on disabled employees organized?

☐ Alphabetically by name
☐ By department and alphabetically by name
☐ By year that employment ended
☐ Other ____

c. Were personnel records of disabled employees ever destroyed while the facility was in operation?

☐ No
☐ Yes If Yes, how long were they retained before being destroyed?
_______ years

IF POSSIBLE, PLEASE ATTACH A BLANK COPY OF THE
PERSONNEL RECORD FORM THAT YOUR FACILITY USED

EMPLOYMENT APPLICATIONS
(for those who were hired)

1. In what form were employment applications kept?

   ☐ Card file
   ☐ Paper file (e.g., 8 1/2 x 11-inch file folder)
   ☐ Wheel file
   ☐ Microfilm
   ☐ Computer file
   ☐ Other files, specify type ____________________

2. Which of the following items were on employment applications? (Check all that apply.)

   ☐ Name
   ☐ Social security number
   ☐ Birthdate
   ☐ Residence address
   ☐ Previous work history

3. Where were these employment applications stored?

   ☐ Personnel files
   ☐ Separate file of applications
   ☐ Other ____________________

4. Were the employment applications of former workers ever destroyed while the facility was in operation?

   ☐ No
   ☐ Yes If Yes, how long were they kept before being destroyed? __________

5. After the facility closed, were employment applications:

   ☐ Kept at the facility?
   ☐ Forwarded to a central repository?
   ☐ Destroyed?
   ☐ Other? ____________________

MEDICAL RECORDS

1. Did you give pre-employment physical examinations when the facility was in operation?

   ☐ No
   ☐ Yes If Yes, answer both a and b below.

   a. When did you begin this practice? ______________

   b. Where were the examinations given?

      ☐ on-site clinic
      ☐ off-site clinic
      ☐ on and off-site clinics

2. Were medical records ever destroyed while the facility was in operation?

   ☐ No
   ☐ Yes If Yes, how long were they retained before being destroyed?
   _______ years

3. Did you regularly collect smoking history for the medical record?

   ☐ No
   ☐ Yes

4. What types of medical exams did you regularly conduct?

   ☐ Hearing assessment
   ☐ Pulmonary function
   ☐ General physical
   ☐ Other ____

5. Were the medical records kept after the plant closed?

   ☐ No
   ☐ Yes

6. Are the medical records currently available?

   ☐ No
   ☐ Yes If Yes, where are they now? ______________________________

7. How many full-time equivalent (FTE) medical staff did you employ?

FTE Medical Staff

a. Physicians ______
b. Nurses ______
c. Technicians ______

IF POSSIBLE, PLEASE ATTACH A BLANK COPY OF THE PRE-EMPLOYMENT EXAMINATION FORM THAT YOUR FACILITY USED

INDUSTRIAL HYGIENE QUESTIONS

1. Did you have one or more industrial hygiene professionals at this facility?

[ ] No
[ ] Yes

2. Did a corporate hygienist provide service and/or consultations at your facility?

[ ] No
[ ] Yes

3. Did you have a part-time or collateral duty person who did industrial hygiene at your facility?

[ ] No
[ ] Yes

4. Did anyone else provide industrial hygiene consultation?

[ ] No
[ ] Yes If Yes, who? ______________________________

5. Did you measure work-place exposures to chemical agents at this plant?

[ ] No
[ ] Yes

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS.

QUESTIONNAIRE FOR SAWMILLS AND PLANING MILLS THAT HAVE CLOSED

The U.S. Environmental Protection Agency is interested in conducting a health survey of current and former sawmill and/or planing mill workers in order to compare the health status of such workers to that of creosote treatment plant workers. The purpose of this questionnaire is to determine what kinds of employment, medical, and industrial hygiene records still exist for your sawmill and/or planing mill and in what format such records were kept. Employee records to be considered are those for salaried and hourly employees. In addition, we are interested in certain descriptive information on the mill and the makeup of the workforce during the operation of the mill.

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For your convenience, this questionnaire is divided into six sections. These are:

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3. Personnel records
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5. Medical records
6. Industrial hygiene

If additional space is needed in answering any of the questions, please continue on the back of the page or use blank sheets, specifying the question by number and letter.

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APPENDIX III

LABELING APPENDICES

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SUMMARY-1

LABEL CONTENTS

40 CFR 162.10 requires that certain specific labeling statements appear at certain locations on the label. This is referred to as format labeling. Specific label items listed below are keyed to the table at the end of this Appendix.

Item 1. PRODUCT NAME - The name, brand or trademark is required to be located on the front panel, preferably centered in the upper part of the panel. The name of a product will not be accepted if it is false or misleading.

Item 2. COMPANY NAME AND ADDRESS - The name and address of the registrant or distributor is required on the label. The name and address should preferably be located at the bottom of the front panel or at the end of the label text.

Item 3. NET CONTENTS - A net contents statement is required on all labels or on the container of the pesticide. The preferred location is the bottom of the front panel immediately above the company name and address, or at the end of the label text. The net contents must be expressed in the largest suitable unit, e.g., "1 pound 10 ounces" rather than "26 ounces." In addition to English units, net contents may be expressed in metric units. [40 CFR 162.10(d)]

Item 4. EPA REGISTRATION NUMBER - The registration number assigned to the pesticide product must appear on the label, preceded by the phrase "EPA Registration No.," or "EPA Reg. No." The registration number must be set in type of a size and style similar to other print on that part of the label on which it appears and must run parallel to it. The registration number and the required identifying phrase must not appear in such a manner as to suggest or imply recommendation or endorsement of the product by the Agency. [40 CFR 162.10(e)]

Item 5. EPA ESTABLISHMENT NUMBER - The EPA establishment number, preceded by the phrase "EPA Est." is the final establishment at which the product was produced, and may appear in any suitable location on the label or immediate container. It must also appear on the wrapper or outside container of the package if the EPA establishment number on the immediate container cannot be clearly read through such wrapper or container. [40 CFR 162.10(f)]

Item 6A. INGREDIENTS STATEMENT - An ingredients statement is required on the front panel. The ingredients statement must contain the name and percentage by weight of each active ingredient and the total percentage by weight of all inert ingredients. The preferred location is immediately below the product name. The ingredients statement must run parallel with, and be clearly distinguished from, other text on the panel. It must not be placed in the body of other text. [40 CFR 162.10(g)]

Item 6B. POUNDS PER GALLON STATEMENT - For liquid agricultural formulations, the pounds per gallon of active ingredient must be indicated on the label.

Item 7. FRONT LABEL PRECAUTIONARY STATEMENTS - Front panel precautionary statements must be grouped together, preferably within a block outline. The table below shows the minimum type size requirements for various size labels.

Size of Label on Front Panel in Square Inches	Signal Word Minimum Type Size All Capitals	"Keep Out of Reach of Children" Minimum Type Size
5 and under	6 point	6 point
above 5 to 10	10 point	6 point
above 10 to 15	12 point	8 point
above 15 to 30	14 point	10 point
over 30	18 point	12 point

Item 7A. CHILD HAZARD WARNING STATEMENT - The statement "Keep Out of Reach of Children" must be located on the front panel above the signal word except where contact with children during distribution or use is unlikely. [40 CFR 162.10(h)(1)(ii)]

Item 7B. SIGNAL WORD - The signal word (DANGER, WARNING, or CAUTION) is required on the front panel immediately below the child hazard warning statement. [40 CFR 162.10 (h)(1)(i)]

Item 7C. SKULL & CROSSBONES AND WORD "POISON" - On products assigned a toxicity Category I on the basis of oral, dermal, or inhalation toxicity, the word "Poison" shall appear on the label in red on a background of distinctly contrasting color and the skull and crossbones shall appear in immediate proximity to the word POISON. [40 CFR 162.10(h)(1)(i)]

Item 7D. STATEMENT OF PRACTICAL TREATMENT - A statement of practical treatment (first aid or other) shall appear on the label of pesticide products in toxicity Categories I, II, and III. [40 CFR 162.10(h)(1)(iii)]

Item 7E. REFERRAL STATEMENT - The statement "See Side (or Back) Panel for Additional Precautionary Statements" is required on the front panel for all products, unless all required precautionary statements appear on the front panel. [40 CFR 162.10(h)(1)(iii)]

Item 8. SIDE/BACK PANEL PRECAUTIONARY LABELING - The precautionary statements listed below must appear together on the label under the heading "PRECAUTIONARY STATEMENTS." The preferred location is at the top of the side or back panel preceding the directions for use, and it is preferred that these statements be surrounded by a block outline. Each of the three hazard warning statements must be headed by the appropriate hazard title. [40 CFR 162.10(h)(2)].

Item 8A. HAZARD TO HUMANS AND DOMESTIC ANIMALS - Where a hazard exists to humans or domestic animals, precautionary statements are required indicating the particular hazard, the route(s) of exposure and the precautions to be taken to avoid accident, injury or damage. [40 CFR 162.10(h)(2)(i)]

Item 8B. ENVIRONMENTAL HAZARD - Where a hazard exists to non-target organisms excluding humans and domestic animals, precautionary statements are required stating the nature of the hazard and the appropriate precautions to avoid potential accident, injury, or damage. [40 CFR 162.10(h)(2)(ii)]

Item 8C. PHYSICAL OR CHEMICAL HAZARD - FLAMMABILITY Precautionary statements relating to flammability of a product are required to appear on the label if it meets the criteria in the PHYS/CHEM Labeling Appendix. The requirement is based on the results of the flashpoint determinations and flame extension tests required to be submitted for all products. These statements are to be located in the side/back panel precautionary statements section, preceded by the heading "Physical/Chemical Hazards." Note that no signal word is used in conjunction with the flammability statements.

Item 9A. RESTRICTED USE CLASSIFICATION - FIFRA sec. 3(d) requires that all pesticide formulations/uses be classified for either general or restricted use. Products classified for restricted use may be limited to use by certified applicators or persons under their direct supervision (or may be subject to other restrictions that may be imposed by regulation).

In the Registration Standard, the Agency has (1) indicated certain formulations/uses are to be restricted (Section IV indicates why the product has been classified for restricted use); or (2) reserved any classification decision until appropriate data are submitted.

The Regulatory Position and Rationale states whether products containing this active ingredient are classified for restricted use. If they are restricted the draft label(s) submitted to the Agency as part of your application must reflect this determination (see below).

If you do not believe that your product should be classified for restricted use, you must submit any information and rationale with your application for reregistration. During the Agency's review of your application, your proposed classification determination will be evaluated in accordance with the provisions of 40 CFR 162.11(c). You will be notified of the Agency's classification decision.

Classification Labeling Requirements

If your product has been classified for restricted use, the following label requirements apply:

1. All uses restricted.

a. The statement "Restricted Use Pesticide" must appear at the top of the front panel of the label. The statement must be set in type of the same minimum size as required for human hazard signal word (see table in 40 CFR 162.10(h)(1)(iv)

b. Directly below this statement on the front panel, a summary statement of the terms of restriction must appear (including the reasons for restriction if specified in Section I). If use is restricted to certified applicators, the following statement is required: "For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification."

2. Some but not all uses restricted. If the Regulatory Position and Rationale states that some uses are classified for restricted use, and some are unclassified, several courses of action are available:

a. You may label the product for Restricted use. If you do so, you may include on the label uses that are unrestricted, but you may not distinguish them on the label as being unrestricted.

b. You may delete all restricted uses from your label and submit draft labeling bearing only unrestricted uses.

c. You may "split" your registration, i.e., register two separate products with identical formulations, one bearing only unrestricted uses, and the other bearing restricted uses. To do so, submit two applications for reregistration, each containing all forms and necessary labels. Both applications should be submitted simultaneously. Note that the products will be assigned separate registration numbers.

Item 9B. MISUSE STATEMENT - All products must bear the misuse statement, "It is a violation of Federal law to use this product in a manner inconsistent with its labeling." This statement appears at the beginning of the directions for use, directly beneath the heading of that section.

Item 10A. REENTRY STATEMENT - If a reentry interval has been established by the Agency, it must be included on the label. Additional worker protection statements may be required in accordance with PR Notice 83-2, March 29, 1983.

Item 10B. STORAGE AND DISPOSAL BLOCK - All labels are required to bear storage and disposal statements. These statements are developed for specific containers, sizes, and chemical content. These instructions must be grouped and appear under the heading "Storage and Disposal" in the directions for use. This heading must be set in the same type sizes as required for the child hazard warning. Refer to Appendix II, STOR, PEST/DIS, and CONT/DIS to determine the storage and disposal instructions appropriate for your products, if not specified in Section IV.

Item 10C. DIRECTIONS FOR USE - Directions for use must be stated in terms which can be easily read and understood by the average person likely to use or to supervise the use of the pesticide. When followed, directions must be adequate to protect the public from fraud and from personal injury and to prevent unreasonable adverse effects on the environment. [40 CFR 162.10]

COLLATERAL LABELING

Bulletins, leaflets, circulars, brochures, data sheets, flyers, or other written or graphic printed matter which is referred to on the label or which is to accompany the product are termed collateral labeling. Such labeling may not bear claims or representations that differ in substance from those accepted in connection with registration of the product. It should be made part of the response to this notice and submitted for review.

SUMMARY-6

LABELING REQUIREMENTS OF THE FIFRA, AS AMENDED

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
1	Product name	All products	Front panel	Center front panel	
2	Company name and address	All products	None	Bottom front panel or end of label text	If registrant is not the producer, must be qualified by "Packed for . . .," "Distributed by. . .," etc.
3	Net contents	All products	None	Bottom front panel or end of label text	May be in metric units in addition to U.S. units
4	EPA Reg. No.	All products	None	Front panel	Must be in similar type size and run parallel to other type.
5	EPA Est. No.	All products	None	Front panel, immediately before or following Reg. No.	May appear on the container instead of the label.
6A	Ingredients statement	All products	Front panel	Immediately following product name	Text must run parallel with other text on the panel.
6B	Pounds/gallon statement	Liquid products where dosage given as lbs. ai/unit area	Front panel	Directly below the main ingredients statement	
7	Front panel precautionary statements	All products	Front panel		All front panel precautionary statements must be grouped together, preferably blocked.
7A	Keep Out of Reach of Children (Child hazard warning)	All products	Front panel	Above signal word	Note type size requirements.
7B	Signal word	All products	Front panel	Immediately below child hazard warning	Note type size requirements.

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL		COMMENTS
			REQUIRED	PREFERRED	
7C	Skull & crossbones and word POISON (in red)	All products which are Category I based on oral, dermal, or inhalation toxicity	Front panel	Both in close proximity to signal word	
7D	Statement of Practical Treatment or First Aid	All products in Categories I, II, and III	Category I: Front panel unless referral statement is used. Others: Grouped with side panel precautionary statements.	Front panel for all.	
7E	Referral statement	All products where precautionary labeling appears on other than front panel.	Front panel		
8	Side/back panel precautionary statements	All products	None	Top or side of back panel preceding directions for use	Must be grouped under the headings in 8A, 8B, and 8C; preferably blocked.
8A	Hazards to humans and domestic animals	All products in Categories I, II, and III	None	Same as above	Must be preceded by appropriate signal word.
8B	Environmental hazards	All products	None	Same as above	Environmental hazards include bee caution where applicable.

SUMMARY-8

ITEM	LABEL ELEMENT	APPLICABILITY OF REQUIREMENT	PLACEMENT ON LABEL REQUIRED	PLACEMENT ON LABEL PREFERRED	COMMENTS
8C	Physical or chemical hazards	All pressurized products, others with flash points under 150°F	None	Same as above	Refer to Appendix II guide PHYS/CHEM
9A	Restricted block	All restricted products	Top center of front panel	Preferably blocked	Includes a statement of the terms of restriction. The words "RESTRICTED USE PESTICIDE" must be same type size as signal word.
9B	Misuse statement	All products	Immediately following heading of directions for use		Required statement is: "It is a violation of Federal law to use this product in a manner inconsistent with its labeling."
10A	Reentry statement	PR Notice 83-2 or as determined by the Agency	In the directions for use	Immediately after misuse statement	
10B	Storage and disposal block	All products	In the directions for use	Immediately before specific directions for use or at the end of directions for use	Must be set apart and clearly distinguishable from from other directions for use. Refer to Appendix II guides STOR, CONT/DIS, and PEST/DIS for further information and required statements.
10C	Directions for use	All products	None	None	May be in metric as well as U.S. units

PHYS/CHEM-1

PHYSICAL/CHEMICAL HAZARDS

Criteria	Required Label Statement
I. Pressurized Containers	
A. Flashpoint at or below 20°F; or if there is a flashback at any valve opening.	Extremely flammable. Contents under pressure. Keep away from fire, sparks, and heated surfaces. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
B. Flashpoint above 20°F and not over 80°F; or if the flame extension is more than 18 inches long at a distance of 6 inches from the valve opening.	Flammable. Contents under pressure. Keep away from heat, sparks, and flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
C. All Other Pressurized Containers	Contents under pressure. Do not use or store near heat or open flame. Do not puncture or incinerate container. Exposure to temperatures above 130°F may cause bursting.
II. Non-Pressurized Containers	
A. Flashpoint at or below 20°F.	Extremely flammable. Keep away from fire, sparks, and heated surfaces.
B. Flashpoint above 20°F and not over 80°F.	Flammable. Keep away from heat and open flame.
C. Flashpoint over 80°F and not over 150°F.	Do not use or store near heat and open flame.
D. Flashpoint above 150°F.	None required.

STOR-1

STORAGE INSTRUCTIONS FOR PESTICIDES

Heading:

All products are required to bear specific label instructions about storage and disposal. Storage and disposal instructions must be grouped together in the directions for use portion of the label under the heading STORAGE AND DISPOSAL. Products intended solely for domestic use need not include the heading "STORAGE AND DISPOSAL."

Storage Instructions:

All product labels are required to have appropriate storage instructions. Specific storage instructions are not prescribed. Each registrant must develop his own storage instructions, considering, when applicable, the following factors:

1. Conditions of storage that might alter the composition or usefulness of the pesticide. Examples could be temperature extremes, excessive moisture or humidity, heat, sunlight, friction, or contaminating substances or media.

2. Physical requirements of storage which might adversely affect the container of the product and its ability to continue to function properly. Requirements might include positioning of the container in storage, storage or damage due to stacking, penetration of moisture, and ability to withstand shock or friction.

3. Specifications for handling the pesticide container, including movement of container within the storage area, proper opening and closing procedures (particularly for opened containers), and measures to minimize exposure while opening or closing container.

4. Instructions on what to do if the container is damaged in any way, or if the pesticide is leaking or has been spilled, and precautions to minimize exposure if damage occurs.

5. General precautions concerning locked storage, storage in original container only, and separation of pesticides during storage to prevent cross-contamination of other pesticides, fertilizer, food, and feed.

6. General storage instructions for household products should emphasize storage in original container and placement in locked storage areas.

CONT/DIS-1

CONTAINER DISPOSAL INSTRUCTIONS

The label of each product must bear container disposal instructions appropriate to the type of container.

1. Domestic use products must bear one of the following container disposal statements:

Container Type	Statement
Non-aerosol products (bottles, cans, jars)	Do not reuse container (bottle, can, jar). Rinse thoroughly before discarding in trash.
Non-aerosol products (bags)	Do not reuse bag. Discard bag in trash.
Aerosol products	Replace cap and discard containers in trash. Do not incinerate or puncture.

2. All other products must bear container disposal instructions, based on container type, listed below:

Container Type	Statement
Metal containers (non-aerosol)	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.
Plastic containers	Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.
Glass containers	Triple rinse (or equivalent). Then dispose of in a sanitary landfill or by other approved state and local procedures.
Fiber drums with liners	Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by state and local authorities. If drum is contaminated and cannot be reused[1], dispose of in the same manner.
Paper and plastic bags	Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.
Compressed gas cylinders	Return empty cylinder for reuse (or similar wording)

1/ Manufacturer may replace this phrase with one indicating whether and how fiber drum may be reused.

ATTACHMENT IV-1

American Wood-Preserver's Association
Standards for
Coal Tar/Creosote Formulations

AMERICAN WOOD-PRESERVERS' ASSOCIATION
STANDARD

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P1-78 (Revised)

STANDARD FOR COAL TAR CREOSOTE FOR LAND AND FRESH WATER USE

1. The creosote shall be a distillate derived entirely from tar produced by the carbonization of bituminous coal.

2. The new creosote and the creosote in use in treating operations shall conform to the following detailed requirements:

	New Creosote		Creosote in Use	
	Not Less Than	Not More Than	Not Less Than	Not More Than
2.1 Water, percent by Volume	—	1.5	—	3.0
2.2 Matter Insoluble in Xylene, percent by Wt.	—	0.5	—	1.5
2.3 Specific Gravity at 38°C compared with water at 15.5°C				
2.31 Whole Creosote	1.050	—	1.050	—
2.32 Fraction 235–315°C	1.027	—	1.027	—
2.33 Fraction 315–355°C	1.095	—	1.095	—
2.4 Distillation: The distillate, percent by wt. on a water-free basis, shall be within the following limits:				
Up to 210°C	—	2.0	—	2.0
Up to 235°C	—	12.0	—	12.0
Up to 270°C	10.0	35.0	10.0	35.0
Up to 315°C	40.0	65.0	40.0	65.0
Up to 355°C	60.0	77.0	60.0	77.0

3. Tests to establish conformance with the foregoing requirements shall be made in accordance with the standard methods of the American Wood-Preservers' Association. (See Standard A1).

Proceedings: 1917, 1921, 1923, 1924, 1933, 1935, 1936, 1947, 1950, 1951, 1952, 1953, 1954, 1965, 1978.

P7-85

STANDARD FOR CREOSOTE FOR BRUSH OR SPRAY TREATMENT FOR FIELD CUTS

1. The creosote shall be a distillate derived entirely from tar produced by the carbonization of bituminous coal.

2. The creosote shall conform to the following detailed requirements:

	Not Less Than	Not More Than
2.1 Moisture percent by volume		1.0
2.2 Specific gravity at 38° C compared to water at 15.5° C	1.06	
2.3 Material Insoluble in Xylene percent by wt.		0.5
2.4 Distillation, the distillate percent by wt. on a moisture-free basis shall have the following limits:		
Up to 210° C % by wt.		1.0
Up to 235° C % by wt.		10.0
Up to 355° C % by wt.	65.0	
2.5 The creosote shall be fluid and remain crystal-free after 3 hours at 5° C.		

3. Tests to establish conformance with the foregoing requirements shall be made in accordance with the standard methods of the American Wood-Preservers' Association. (See Standard A1).

P13–85

STANDARD FOR COAL TAR CREOSOTE TO BE USED IN THE TREATMENT OF MARINE (COASTAL WATERS) FILES AND TIMBERS

1. The creosote shall be a distillate derived entirely from tar produced by the carbonization of bituminous coal.

2. The new creosote and the creosote in use in treating operations shall conform to the following detailed requirements.

	New Creosote		Creosote In Use	
	Not Less Than	Not More Than	Not Less Than	Not More Than
2.1 Water, percent by Volume	-----	1.5	-----	3.0
2.2 Matter Insoluble in Xylene, percent by Wt.	-----	0.5	-----	1.5
2.3 Specific Gravity at 38°C compared with water at 15.5°C				
2.31 Whole Creosote	1.080	----	1.080	----
2.32 Fraction 235–315°C	1.030	----	1.030	----
2.33 Fraction 315–355°C	1.105	----	1.105	----
2.34 Residue above 355°C	1.160	----	1.160	----
2.4 Distillation: The distillate, percent by wt. on a water-free basis, shall be within the following limits:				
Up to 210°C	-----	2.0	-----	2.0
Up to 235°C	-----	12.0	-----	12.0
Up to 270°C	20.0	40.0	20.0	40.0
Up to 315°C	45.0	65.0	45.0	65.0
Up to 355°C	65.0	75.0	65.0	75.0

3. Tests to establish conformance with the foregoing requirements shall be made in accordance with the standard methods of the American Wood-Preservers' Association (see Standard A1).

P2–85

STANDARD FOR CREOSOTE AND CREOSOTE SOLUTIONS

1. The material shall be a pure coal tar product, derived entirely from tar produced by the carbonization of bituminous coal. It may be either a coal tar distillate or a solution of coal tar in coal tar distillate.

2. The material shall conform to the following detailed requirements:

GRADE					B			
	New Material		Material In Use		New Material		Material In Use	
	Not Less Than	Not More Than	Not Less Than	Not More Than	Not Less Than	Not More Than	Not Less Than	Not More Than
2.1 Composition: Coal tar distillate percent by volume	80		80		70		70	
2.2 Water: percent by volume		3.0		3.0		3.0		3.0
2.3 Material Insoluble in Xylene: percent by weight		2.0		3.0		3.0		4.0
2.4 Coke Residue: percent by weight		5.0		6.0		7.0		8.0
2.5 Specific Gravity at 38°C Compared with water at 15.5°C								
2.51 Whole material	1.06	1.11	1.06	1.11	1.07	1.12	1.07	1.12
2.52 Fraction 235/315°C	1.025		1.025		1.025		1.025	
2.53 Fraction 315/355°C	1.085		1.085		1.085		1.085	
2.6 Distillation: the distillate percent by weight on a water free basis shall be within the following limits:								
2.61 Up to 210°C		5		5		5		5
2.62 Up to 235°C		25		25		25		25
2.63 Up to 315°C	36		36		34		34	
2.64 Up to 355°C	60		60		56		56	

GRADE	C				D			
	New Material		Material In Use		New Material		Material In Use	
	Not Less Than	Not More Than	Not Less Than	Not More Than	Not Less Than	Not More Than	Not Less Than	Not More Than
2.1 Composition: Coal tar distillate percent by volume	60		60		50		50	
2.2 Water: percent by volume		3.0		3.0		3.0		3.0
2.3 Material Insoluble in Xylene: percent by weight		3.5		4.5		4.0		5.0
2.4 Coke Residue: percent by weight		9.0		10.0		11.0		12.0
2.5 Specific Gravity at 38°C Compared with water at 15.5°C								
2.51 Whole material	1.08	1.13	1.08	1.13	1.09	1.14	1.09	1.14
2.52 Fraction 235/315°C	1.025		1.025		1.025		1.025	
2.53 Fraction 315/355°C	1.085		1.085		1.085		1.085	
2.6 Distillation: the distillate percent by weight on a water free basis shall be within the following limits:								
2.61 Up to 210°C		5		5		5		5
2.62 Up to 235°C		25		25		25		25
2.63 Up to 315°C	32		32		30		30	
2.64 Up to 355°C	52		52		48		48	

3.0 Tests to establish conformity with the foregoing requirements shall be made in accordance with the standard methods of the American Wood-Preservers' Association. (see Standard A1)

P12–85

STANDARD FOR CREOSOTE-COAL TAR SOLUTION TO BE USED IN THE TREATMENT OF MARINE (COASTAL WATERS) PILES AND TIMBERS

1. The material shall be a pure coal-tar product derived entirely from tar produced by the carbonization of bituminous coal.

2. Composition: The material shall be a solution of coal tar in coal-tar creosote.

3. It shall conform to the following detailed requirements:

	Not Less Than	Not More Than
4. Water—percent by volume	------	3.0
5. Material Insoluble in Xylene[1], percent	1.0	3.0
6. Coke Residue[1], percent	4.0	7.0
7. Specific Gravity at 38° C, compared to water at 15.6° C.	1.090	----
8. Distillation[1]: The distillate percent, on a water-free basis, shall be within the following limits:		
Up to 210° C.	------	5.0
Up to 235° C.	------	15.0
Up to 270° C.	20.0	35.0
Up to 315° C.	35.0	50.0
Up to 355° C.	65.0	70.0

	Not Less Than	Not More Than
9. Specific Gravity of Fractions at 38° C. compared to water at 15.6° C.:		
Fraction 235° C.–315° C.	1.030	----
Fraction 315° C.–355° C.	1.105	----
10. Specific Gravity of Distillation Residue above 355° C. at 38° C. compared to water at 15.6° C.	1.185	----

11. Tests to establish conformance with the foregoing requirements shall be made in accordance with the standard methods of the American Wood-Preservers' Association. (See Standard A1).

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[1] Due to treating operations, samples of used solution may show an increase in material insoluble in Xylene and in coke residue, and decreases in percentages of distillate up to 235° C. A used solution shall be considered as conforming if it can be shown that the original solution was of specified quality and the used solution conforms to the standard requirements within the following limits:

Xylene Insoluble, maximum percent	4.0
Coke Residue, maximum percent	8.0
Distillate up to 235° C., minimum percent	2.0

Proceedings: 1963, 1965, 1968, 1985.

APPENDIX IV

USE INDEX APPENDIX

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EPA Index to Pesticide Chemicals

COAL TAR/CREOSOTE

TABLE OF CONTENTS

Site Name Page

TERRESTRIAL NONFOOD CROP 6
  (Wood or Wood Structure Protection Treatments, Nondomestic) 6
    (Products Labeled for Pressure Treatment of Wood) 6
  Wood Protection Treatment by Pressure 6
    (Products Labeled for Groundline Treatment of Utility Poles) 7
  Seasoned Wood Products 7
    (Products Labeled for Use in Nonpressure Treatment Plants) 10
  Finished Wood Products 10
  Seasoned Wood Products 10
    (Products Labeled for Pole Framing, Piling Applications, and Railroad Tie Repair) 11
  Seasoned Forest Products 11
    (Products Labeled for Several Use Categories With No Specific Directions for Use) 12

DOMESTIC OUTDOORS 13
  (Wood or Wood Structure Protection Treatments) 13
    (Products Labeled for Home and Farm Use) 13
  Finished Wood Products 13
  Seasoned Forest Products 13, 14
  Wood Treatment in Existing Buildings 14

c025003

COAL TAR/CREOSOTE*

TYPE PESTICIDE: Wood Preservative, Fungicide, Insecticide

FORMULATIONS:
RTU (15%, 15.46%, 15.5%, 20%, 30%, 35%, 38.3%, 45.62%, 46.5%, 50%, 56.1%, 60%, 65.8%, 66.7%, 70%, 76%, 80%, 86%, 90%, 94.5%, 95%, 95.5%, 96%, 97%, 98%, 98.5%, 99%, 100%)

GENERAL WARNINGS AND LIMITATIONS:
Precautionary Statements: Hazards to Humans and Domestic Animals
DANGER: May be fatal if swallowed, inhaled or absorbed through skin. Causes skin and eye irritation. May cause severe burns. Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist. Use with adequate ventilation. Do not take internally. Wash thoroughly after skin contact, before eating, drinking, use of tobacco products, or using restrooms.
Additional Precautionary Statements for End Use Products
Additional precautionary/prohibition language is required on product labels based on the intended uses of the product. There are five designated use categories for coal tar/creosote end use products that require such statements.
NOTE: Observe warnings and limitations for other active ingredients on multiple active ingredient labels.
Definition of Terms:
MAI - Multiple Active Ingredient(s)

Products Labeled for Pressure Treatment of Wood
RESTRICTED USE PESTICIDE.
For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators' certification.
Individuals must wear gloves impervious to the wood treatment formulation in all situations where dermal contact with creosote is expected (e.g., handling freshly treated wood and manually opening cylinder doors).
Individuals who manually open cylinder doors must wear gloves and a respirator.
Individuals who enter pressure treatment cylinders and other related equipment that is contaminated with the wood treatment formulation (e.g., cylinders that are in operation or are not free of the treatment formulation) must wear protective clothing (including overalls, jacket, gloves and boots) impervious to the wood treatment formulation and a respirator. Acceptable materials for protective clothing during application and handling of this product are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene and NBR (Buna-N).

*Coal tar/creosote includes currently registered products containing coal tar (022003), creosote oil (025003), and coal tar creosote (025004). Where a formulation contains two of these active ingredients, the higher percentage has been used to identify the product(s) in the body of the report. See the Listing of Registered Products for the lower percentage active ingredient.

GENERAL WARNINGS AND LIMITATIONS (continued)

Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and workshoes or boots and equipment at the plant. Worn out protective clothing and workshoes or boots must be left at the plant and disposed of in any general landfill, in the trash, or in any other manner approved for pesticide disposal.
Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation (e.g., manually opening/closing cylinder doors, moving trams out of cylinder, mixing chemicals, and handling freshly treated wood).
Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatics and organic vapors.

Products Labeled for Groundline Treatment of Utility Poles
RESTRICTED USE PESTICIDE.
For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators' certification.
Applicators must wear gloves impervious to the wood treatment formulations (e.g., polyvinyl acetate (PVA), polyvinyl chloride (PVC), or neoprene) in all situations where dermal contact is expected (e.g., during the actual application process and when handling freshly treated wood).
Applicators must wear long sleeved shirts, long pants, and an impermeable apron during the application and mixing processes and all situations where dermal contact is expected.
Work clothing must be changed when it shows signs of contamination. Launder work clothing separately from other household laundry. Dispose of worn-out work clothing and workshoes or boots in any general landfill, in the trash, or in any other manner approved for pesticide disposal.
Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.

Products Labeled as Wood Preservatives for Home and Farm Use
RESTRICTED USE PESTICIDE.
For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators' certification.
Applicators must wear gloves impervious to the wood treatment formulation in all situations where dermal contact is expected (for example, during the actual application process and when handling freshly treated wood).
Spray applicators must wear protective clothing (including overalls, jackets, gloves, boots, and head covering) impervious to the wood treatment formulation, and a respirator and goggles when spraying.

GENERAL WARNINGS AND LIMITATIONS (continued)

Applicators who apply creosote by other application processes (e.g., brush-other application processes (e.g., brush-on)) must wear long sleeved shirts, long pants and an impermeable apron. Launder work clothing separately from other household laundry. Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.
Protective clothing must be changed when it shows signs of contamination. Dispose of worn-out protective clothing and workshoes or boots in a general landfill, in the trash or in any other manner approved for pesticide disposal.
Avoid handling vapors. If inhalation of vapor cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask canister or cartridge respirator which is MSHA/NIOSH-approved for polynuclear aromatics and organic vapors.
Do not apply where there may be direct contact with domestic animals or livestock, and where there may be contamination of food, feed, or drinking and irrigation water.
Do not apply in interiors. Do not apply to wood intended for use in interiors except for those support structures which are in contact with the soil in barns, stables, and similar sites and which are subject to decay or insect infestation. Interior surfaces of the treated wood should be sealed with 2 coats of an appropriate sealer. Sealers may be applied at the installation site.
Do not apply to wood intended for farrowing or brooding facilities.
Do not apply to wood intended to be used in the interiors of farm buildings where there may be direct contact with domestic animals or livestock which may crib (bite) or lick the wood. This product may be used to treat wood intended to be used in interiors of farm buildings where domestic animals or livestock are unlikely to crib or lick the wood, if 2 coats of an appropriate sealer will be applied. Sealers may be applied at the installation site.
Do not apply to wood intended to be used in a manner in which the preservative may become a component of food or animal feed.
Examples of such sites would be structures or containers for storing silage or food.
Do not use this product to treat wood intended to be used for cutting boards or counter tops.
Do not use this product to treat wood intended for construction of those portions of beehives which may come into contact with the honey.
Do not use this product to treat wood intended for use where it may come into direct or indirect contact with public drinking water, except for those uses involving incidental contact such as docks and bridges.
Do not use this product to treat wood intended to be used where it may come into direct or indirect contact with drinking water for domestic animals or livestock, except for uses involving incidental contact such as docks and bridges.
Wood to be treated with this product should be cut to size before treatment. If it is necessary to saw or machine wood after treatment, wear goggles to protect the eyes from flying particles and a

GENERAL WARNINGS AND LIMITATIONS (continued)

dust mask to avoid inhaling sawdust from the treated wood. If oily preservatives or sawdust accumulate on cloths, launder before reuse. Wash work clothes separately from other household laundry.
Contact with treated surfaces should be avoided even after the preservative has dried. When handling treated wood wear long-sleeved shirts, long pants, and impervious gloves (e.g., vinyl coated).
Wood which has been treated with this product should be disposed of by burial or ordinary trash collection. Do not burn treated wood in an outdoor fire or in stoves or fireplaces because toxic chemicals may be produced as part of the smoke and ashes.
This product should not be used to treat wood which will be in frequent or prolonged contact with skin, unless the wood will be treated with an effective sealer.

Products Labeled as Wood Preservatives for Use in Nonpressure Treatment Plants
RESTRICTED USE PESTICIDE.
For sale to and use only by certified applicators or by persons under their direct supervision and only for those uses covered by the certified applicators' certification.
Applicators must wear gloves impervious to the wood treatment formulation in all situations where dermal contact is expected (for example, during the actual application process and when handling freshly treated wood).
Spray applicators must wear protective clothing (including overalls, jackets, gloves, boots, and head covering) impervious to the wood treatment formulation and a respirator and goggles when spraying. Acceptable materials for protective clothing during application and handling of this product are polyvinyl acetate (PVA), polyvinyl chloride (PVC), neoprene and NBR (Buna-N).
Individuals who enter, clean or repair vats, tanks or other related equipment that is contaminated with the wood treatment formulation (e.g., tanks that are in operation or are not free of the treatment formulation) must wear protective clothing (including overalls, jacket, gloves and boots) impervious to the wood treatment formulation, and goggles and a respirator.
Applicators who apply creosote by other application processes (e.g., brush on) must wear disposable coveralls or other suitable impermeable protective clothing.
Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.
Protective clothing must be changed when it shows signs of contamination. Applicators must leave protective clothing and workshoes or boots and equipment at the plant. Worn-out protective clothing and workshoes or boots must be left at the plant and disposed of in any general landfill, in the trash, or in any other manner approved for pesticide disposal.
Avoid inhaling vapors. If inhalation of vapors cannot be avoided, applicators must wear a properly fitting, well-maintained half-mask canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatic and organic vapors.

COAL TAR/CREOSOTE

GENERAL WARNINGS AND LIMITATIONS (continued)

Products Labeled as Wood Preservatives for Use in Pole Framing, Piling Applications, and Railroad Tie Repair
For pole framing, piling applications and railroad tie repair use only. Not for household, farm, or nonpressure wood treatment plant use.
For application to end cuts, bolt holes, and hardware fabrication. Do not dilute or mix with other products. Ready for use.
Applicators must wear gloves impervious to the wood treatment formulation in all situations where dermal contact is expected (for example, during the actual application process and when handling freshly treated wood).
Spray applicators must wear protective clothing (including overalls, jackets, gloves, head covering, and boots) impervious to the wood treatment formulation, a properly fitting, well-maintained canister or cartridge respirator which is MSHA/NIOSH approved for polynuclear aromatics and organic vapors, and goggles when spraying.
Railroad tie repair spray applicators operating a mechanized tie sprayer (dual adzer) must wear long-sleeved shirts and long pants or other suitable protective clothing. Applicators engaged in loading or maintenance of the spray equipment or other activities which may result in exposure to liquids, splashed or spills must wear long sleeved shirts, long pants and an impermeable apron.
Railroad tie repair spray applicators operating non-mechanized spray equipment must wear long sleeved shirts, long pants and an impermeable apron, gloves and boots and head covering impervious to the wood treatment formulation, and a respirator and goggles. Applicators engaged loading or maintenance of the spray equipment or other activities which may result in exposure to liquids, splashes or spills must wear long sleeved shirts and long pants and an impermeable apron.
Applicators who apply by other application processes (e.g., brush-on) must wear long sleeved shirts, long pants and an impermeable apron.
Protective clothing, workshoes or boots and equipment must not be taken home.
Applicators must not eat, drink, or use tobacco products during those parts of the application process that may expose them to the wood treatment formulation.
Protective clothing must be changed when it shows signs of contamination. Dispose of worn-out protective clothing and workshoes or boots in a general landfill, in the trash or in any other manner approved for pesticide disposal.
Applicators must complete an EPA approved training program.
For the pole framing, piling applications and railroad tie repair applications the label must also state:
For sale only to pole framing, piling and railroad tie repair applicators.
For sale only in 10 gallon or larger containers. A package of two 5 gallon containers is permissible.

TERRESTRIAL NONFOOD CROP

(Wood or Wood Structure Protection Treatments, Nondomestic)

(Products Labeled for Pressure Treatment of Wood)

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
/64010NA /64010NB	Wood Protection Treatment by Pressure		
IMAAACA	Wood boring insects	From 025004 labeling: --	RESTRICTED USE PESTICIDE. See pressure treatment precautionary statements.
FYAEQBB	Wood/rot decay	(100% RTU) 054774-00001	Wood protection treatment by pressure (unpainted lumber). Regardless of the type of pressure treatment used, the normal retention required for creosote is from 6 to 12 pounds per cubic foot. Only dry wood is satisfactorily treated by the pressure process. Unseasoned wood should first be steam conditioned, followed by a 1 to 3 hour vacuum period, by vapor drying, where the vapors are condensed on the surfaces, or by Boultonizing where wood is heated in creosote while under vacuum.
		From 025004 labeling: -- (94.5%, 95%, 98%, 98.5% RTU) 000061-00131 or From 022003 labeling: -- (90% RTU) 057344-00004	RESTRICTED USE PESTICIDE. See pressure treatment precautionary statements. Wood protection treatment by pressure. May be formulated with coal tar.

156

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations

Wood Protection Treatment by Pressure (continued)

		[MAI] From 025004 labeling: -- (46.5%, 56.1%, 65.8%, 76% RTU) 057344-00006	

(Products Labeled for Groundline Treatment of Utility Poles)

/64002NA /64002NB	Seasoned Wood Products		
FYAEQBB	Wood rot/decay	From 025004 labeling: -- (66.7% RTU) 011668-00001	RESTRICTED USE PESTICIDE. See precautionary statements. Wood protection treatment. Apply to posts, fences, shingles, pilings, and studdings that are clean, dry, and well-seasoned. Preferable method of application is by the bath process, but application may also be made by dip, brush, or spray. By bath, immerse wood in a creosote solution that has been heated to 100 to 130 F (37.8 to 54.4 C). The temperature of the solution should be kept above 125 F (51.7 C) for 2 hours, then allowed to cool before removing wood. If 2 baths are available, remove the wood from the first bath at the end of 2 hours and place it in a second tank containing unheated formulation for 2 hours. After 2 hours, remove the wood and let dry 4 to 6 hours before handling. By dip, immerse wood for 1 hour in a bath of creosote that has been heated to 100 to 130 F (37.8 to 54.4 C). Wood treated by dip must be completely peeled and thoroughly seasoned. By brush, heat the creosote solution to 100 to 130 F (37.8 to 54.4 C) and flood the heated solution over the surface with a brush, completely filling

Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
Seasoned Wood Products (continued)		
		all checks and defects. Apply a second coat after 24 hours or after the surface is dry. By spray, apply 2 coats of heated solution (100 to 130 F (37.8 to 54.4 C)) using standard spray equipment. Application by spraying is not recommended during cold weather.
	From 025004 labeling: -- (98.5%, 99% RTU) 000061-00183	RESTRICTED USE PESTICIDE. See precautionary statements. Wood protection treatment. Apply by dipping or brushing to clean and dry wood. Use heavy applications for field treatment until no visible evidence of further penetration occurs. Coverage (50 to 150 square feet per gallon) depends upon surface conditions and the type of wood grain.
	[MAI] From 025004 labeling: -- (15%, 35% RTU) 000453-00259	Wood protection treatment. For standing poles, dig a trench around the pole to a depth or 12 inches in wet areas to 18 inches or more in arid regions. Scrape away dirt and decayed wood from pole surface. Using a brush, paddle, scoop or mechanical applicator, apply a minimum coating of 1/4 inch thick (1/16 inch for 35 percent liquid-ready to use) from the bottom of the trench to a height of 2 to 12 inches above the groundline depending on local conditions. Wrap with a suitable plastic coated paper. Alternately, apply to a suitable wrapping material and staple the wrapper to the pole before backfilling the trenched area. For piling cut-offs, apply a coating 1/4 to 1/2 inch to cut ends (1/16 inch for 35 percent liquid-ready to use). Poles that have been held in storage for a prolonged period or used poles to be relocated, may be treated in decay vulnera-

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Seasoned Wood Products (continued)		
			ble zones as described above. The moisture content of wood to be treated should be less than 30 percent. Formulated with one or a combination of: aromatic petroleum distillate, borax, pentachlorophenol, or sodium fluoride.
IMAGAAA FYAEQBB	(Termites) Wood rot/decay	[MAI] From 025004 labeling: -- (15%, 15.46%, 15.5%, 20% RTU) 001022-00256 or From 025003 labeling: -- (30% RTU) 007234-00018	RESTRICTED USE PESTICIDE. See precautionary statements for groundline treatment of utility poles. Wood protection treatment. Preferred application method is by preparation of a bandage. Deep checks or splits may be treated by using a caulking gun. Excavate the soil away from the poles to a depth of about 18 inches. Remove soil and decay from pole surface. Apply in a 1/4 inch thickness or more (3/8 inch) under special conditions. Bandages may be prepared to cover groundline areas of poles in bands 18 to 22 inches in height. Apply to cover the pole surface 4 inches below the last evidence of decay and 3 inches above the groundline. More than 1 bandage may be used in special cases where the pole area to be covered spans a height greater than 22 inches, such as on hillsides. Formulated with 2 or more of the following: aromatic petroleum derivative solvent, borax, coal tar neutral oils, pentachlorophenol, or sodium fluoride.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	Seasoned Wood Products (continued)		
IMAGAAA IMAAACA	Termites Wood boring insects	[MAI] From 025004 labeling: bandage	RESTRICTED USE PESTICIDE. See precautionary statements for groundline treatment of utility poles.
FYAEQBB	Wood/rot decay	(15% RTU) 001022-00218	Wood protection treatment. Dig around the pole to a depth of 18 inches. Remove dirt and decayed wood. Apply bandage so that it extends 3 inches above the groundline. Wrap bandage tightly, overlapping ends, then nail or staple in place. Backfill, but not above the top of the bandage. Formulated with pentachlorophenol and sodium fluoride; or aromatic petroleum distillate, pentachlorophenol, and sodium fluoride.
	(Products Labeled for Use in Nonpressure Treatment Plants)		
/64003NB /64002NA /64002NB	Finished Wood Products Seasoned Wood Products		
FYAEQBB	Wood rot/decay	From 025003 labeling: -- (100% RTU) 003486-00004	RESTRICTED USE PESTICIDE. See precautionary statements for nonpressure treatment plants. Wood protection treatment. Wood to be treated must be dry, seasoned, and peeled of bark. Dip fence posts for 12 to 48 hours. Apply 2 heavy coats to lumber by brush (100 to 150 square feet per gallon), allowing 24 hours between applications.
		From 025004 labeling: -- (66.7%, 98.5%, 99% RTU) 011668-00001	See single active ingredient use patterns for groundline treatment of utility poles, and follow precautionary statements for nonpressure treatment plants.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
	(Products Labeled for Pole Framing, Piling Applications, and Railroad Tie Repair)		
/64002NA /64002NB	Seasoned Forest Products		See precautionary statements for pole framing, piling applications, and railroad tie repair. Applicators must complete an EPA-approved training program to use these products. The products are ready to use and for application to end cuts, bolt holes, and hardware fabrication.
FYAEQBB	Wood rot/decay	From 025004 labeling: -- (97% RTU) 003098-00019	Wood protection treatment. Apply several coats with a brush or mop to all surfaces of creosote pressure treated lumber that has been exposed to cutting, notching, or dapping.
		From 025004 labeling: -- (95%, 98.5%, 99% RTU) 000061-00184 or From 025003 labeling: -- (97% RTU) 001456-00023	Wood protection treatment. May be formulated with coal tar; or 2,4-dinitrophenol, potassium dichromate, and sodium fluoride.
		[MAI] From 025003 labeling: -- (45.62%, 50%, 60%, 70%, 80% RTU) 003008-00050	

Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
Seasoned Forest Products (continued)		
	[MAI] From 025004 labeling: -- (15% RTU) 003008-00013	Wood protection treatment. For machine application to ties, transfer formulation to hopper of application machine. Adjust machine to apply 4.5 cubic inches of formulation to each tie plate area (9 cubic inches per tie). Treated area should be completely covered by tie-plate. For application to other timber, remove all surface decay and apply by brush. Apply at a thickness of 1/8 inch, making liberal application to checks and splits. Formulated with sodium fluoride.
(Products Labeled for Several Use Categories With No Specific Directions for Use)		
[No Site or Pest]	From 025004 labeling: -- (98%, 98.5% RTU) 000218-00132 or From 025003 labeling: -- (97% RTU) 001456-00018	RESTRICTED USE PESTICIDE. See precautionary statements for pressure treatment; groundline treatment of utility poles; nonpressure treatment plants; pole framing, piling applications, and railroad tie repair (not restricted); and home and farm uses. May be formulated with coal tar.
	[MAI] From 025003 labeling: -- (50%, 60%, 70%, 80% RTU) 001456-00019	

DOMESTIC OUTDOORS

(Wood or Wood Structure Protection Treatments)

(Products Labeled for Home and Farm Use)

/64003NB Finished Wood Products
/64002NA Seasoned Forest Products
/64002NB

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
ISASAFA INAAACA IMGAAAA FYAEQBB	Carpenter ants Powderpost beetles Termites Wood rot/decay	From 025004 labeling: -- (30%, 97%, 98.5% RTU) 004091-00011 [MAI] From 025003 labeling: -- (86% RTU) 009957-00010 or From 022003 labeling: -- (30% RTU) 007234-00018	RESTRICTED USE PESTICIDE. See precautionary statements for home and farm use. Wood protection treatment (fence posts, poles, foundation timbers, sills, shingles, and joists). For ground contact wood, immerse for 12 to 48 hours. Or, apply at least 2 liberal coats by brush (100 to 150 square feet per gallon), allowing to dry overnight between coats. When treated lumber is cut, apply 2 coats to the exposed, untreated wood. Apply full length to fence posts or at least 10 inches above ground when setting posts. Wood to be treated should be well-seasoned, dry, and free of bark and decay. May be formulated with cresylic acid; or creosote oil.
		From 025004 labeling: -- (66.7%, 98.5%,, 99% RTU) 011668-00001	See single active ingredient use patterns for groundline treatment of utility poles, and follow precautionary statements for home and farm use.

	Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations
/64002NA /64002NB	Seasoned Forest Products		
/64000NA /64000NB	Wood Treatment in Existing Builcings		
INAAACA	Powderpost beetles	From 025004 labeling: --	RESTRICTED USE PESTICIDE. See precautionary statements for home and farm use.
FYAEQBB	Wood rot/decay	(97% RTU) 007161-00002	Wood protection treatment (new lumber and lumber in existing buildings). Apply by immersion for 1 hour (5 to 10 gallons per 1,000 board feet); apply twice for wood that is to have ground contact. When immersion is impractical, cut out all unsound wood 2 feet beyond any visible signs of decay and apply 2 heavy brush coats (200 square feet per gallon).
ISASAFA	Carpenter ants	[MAI]	RESTRICTED USE PESTICIDE. See precautionary statements for home and farm uses.
INAAACA	Powderpost beetles	From 025004 labeling: --	
FYAEQBB	Wood rot/decay	(15%, 15.5%, 20% RTU) 001022-00256	Wood protection treatment. Apply to groundline area of unpreserved fence posts and pilings following the same general procedures given below for treating utility poles. Preferred application method is by preparation of a bandage. Deep checks or splits may be treated by using a caulking gun. Excavate the soil away from the poles to a depth of about 18 inches. Remove soil and decay from pole surface. Apply in a 1/4 inch thickness or more (3/8 inch) under special conditions. Bandages may be prepared to cover groundline areas of poles in bands 18 to 22 inches in height. Apply to cover the pole surface 4 inches below the last evidence of decay and 3 inches above the groundline. More than 1 bandage may be used in special cases where the pole area to be covered spans a height greater than 22 inches, such as on hillsides.

Site and Pest	Dosages and Formulation(s)	Tolerance, Use, Limitations

Seasoned Forest Products cluster (continued)

		Formulated with 2 of the following: aromatic petroleum derivative solvent, pentachlorophenol, or sodium fluoride.

See TERRESTRIAL NONFOOD CROP, (Products Labeled for Several Use Categories With No Specific Directions for Use).

COAL TAR/CREOSOTE

Listing of Registered Pesticide Products by Formulation

&215.0016 15% liquid-ready to use
coal tar creosote (025004)
sodium fluoride (075202)
003008-00013

coal tar creosote (025004)
aromatic petroleum distillate (006601)
pentachlorophenol (063001)
000453-00171

coal tar creosote (025004)
borax or sodium tetraborate decahydrate (011102)
pentachlorophenol (063001)
003008-00015

coal tar creosote (025004)
pentachlorophenol (063001)
sodium fluoride (075202)
001022-00256 003008-00014

coal tar creosote (025004)
aromatic petroleum derivative solvent (006501)
pentachlorophenol (063001)
sodium fluoride (075202)
001022-00218

coal tar creosote (025004)
aromatic petroleum distillate (006601)
borax or sodium tetraborate decahydrate (011102)
pentachlorophenol (063001)
000453-00103

coal tar creosote (025004)
aromatic petroleum distillate (006601)
pentachlorophenol (063001)
sodium fluoride (075202)
000453-00259

&215.4616 15.46% liquid-ready to use
coal tar creosote (025004)
aromatic petroleum derivative solvent (006501)
borax or sodium tetraborate decahydrate (011102)
pentachlorophenol (063001)
001022-00379

&215.5016 15.5% liquid-ready to use
coal tar creosote (025004)
aromatic petroleum derivative solvent (006501)
pentachlorophenol (063001)
001022-00408

COAL TAR/CREOSOTE

Listing of Registered Pesticide Products by Formulation (continued)

&220.0016 20% liquid-ready to use
coal tar creosote (025004)
aromatic petroleum derivative solvent (006501)
pentachlorophenol (063001)
001022-00496

&230.0016 30% liquid-ready to use
coal tar creosote (025004)
010727-00002

creosote oil (025003)
coal tar neutral oils (025001)
pentachlorophenol (063001)
007234-00018

&235.0016 35% liquid-ready to use
coal tar creosote (025004)
pentachlorophenol (063001)
sodium fluoride (075202)
000453-00182 006314-00001*
*jacket currently unavailable for review

&238.3016 38.3% liquid-ready to use
coal tar creosote (025004)
creosote oil (025003) 38.3%
2,4-dinitrophenol (037509)
pentachlorophenol (063001)
potassium dichromate (068302)
sodium fluoride (075202)
003008-00048*
*jacket currently unavailable for review

&245.6216 45.62% liquid-ready to use
creosote oil (025003)
2,4-dinitrophenol (037509)
potassium dichromate (068302)
sodium fluoride (075202)
003008-00004* 0003008-00050
*jacket currently unavailable for review

&246.5016 46.5% liquid-ready to use
coal tar creosote (025004)
coal tar (022003) 46.5%
057344-00006

&250.0016 50% liquid-ready to use
creosote oil (025003)
coal tar (022003) 47%
001456-00019 001456-00024

COAL TAR/CREOSOTE

Listing of Registered Pesticide Products by Formulation (continued)

&256.1016 56.1% liquid-ready to use
coal tar creosote (025004)
coal tar (022003) 37.4%
057344-00005

&260.0016 60% liquid-ready to use
creosote oil (025003)
coal tar (022003) 37%
001456-00020 001456-00025

&265.8016 65.8% liquid-ready to use
coal tar creosote (025004)
creosote oil (025003) 28.2%
057344-00002

&266.7016 66.7% liquid-ready to use
coal tar creosote (025004)
011668-00001

&270.0016 70% liquid-ready to use
creosote oil (025003)
coal tar (022003) 27%
001456-00022 001456-00026

coal tar (022003)
creosote oil (025003) 30%
003486-00001

&276.0016 76% liquid-ready to use
coal tar creosote (025004)
coal tar (022003) 19%
057344-00003

&280.0016 80% liquid-ready to use
creosote oil (025003)
coal tar (022003)
001456-00021 001456-00027

&286.0016 86% liquid-ready to use
creosote oil (025003)
cresylic acid (022101)
009957-00010

&290.0016 90% liquid-ready to use
coal tar (022003)
057344-00004

&294.5016 94.5% liquid-ready to use
coal tar creosote (025004)
000061-00130

Listing of Registered Pesticide Products by Formulation (continued)

&295.0016 95% liquid-ready to use
coal tar creosote (025004)
000061-00131 000061-00185

&295.5016 95.5% liquid-ready to use
coal tar creosote (025004)
000061-00133*
*jacket currently unavailable for review

&296.0016 96% liquid-ready to use
coal tar creosote (025004)
000061-00132*
*jacket currently unavailable for review

&297.0016 97% liquid-ready to use
creosote oil (025003)
000299-00156* 001456-00018 001456-00023 011690-00001
*jacket currently unavailable for review

coal tar creosote (025004)
003098-00009 003098-00019 007161-00002 055146-00020*
*jacket currently unavailable for review

&298.0016 98% liquid-ready to use
coal tar creosote (025004)
000218-00136 057344-00001

&298.5016 98.5% liquid-ready to use
coal tar creosote (025004)
000061-00094 000061-00183 000061-00184 000218-00132
000218-00609 002077-00002 004091-00007 004091-00011

&299.0016 99% liquid-ready to use
coal tar creosote (025004)
000061-00096 000061-00129 000061-00186 000061-00187

&299.9916 100% liquid-ready to use
creosote oil (025003)
003486-00004 005351-00005

coal tar creosote (025004)
054774-00001

EPA Index to Pesticide Chemicals

COAL TAR/CREOSOTE

Appendix A-1

Listing of Active Ingredient(s) Found in Combination with the Report Chemical

Chemical Code	Common Name (source)	EPA Acceptable Common/Chemical Name
006501	aromatic petroleum derivative solvent	--
006601	aromatic petroleum distillate	--
011102	borax	borax or sodium tetraborate decahydrate
022003	coal tar	--
025001	coal tar neutral oils	--
025004	coal tar creosote	--
025003	creosote oil	--
022101	cresylic acid	--
037509	2,4-dinitrophenol	--
063001	pentachlorophenol	--
063503	petroleum distillate	--
068302	potassium dichromate	--
075202	sodium fluoride	--

-- Use Common Name

Form Approved. OMB No. 2070-0057. Approval expires 11-30-89.

FIFRA SECTION 3(C)(2)(B) SUMMARY SHEET	EPA REGISTRATION NO.
PRODUCT NAME	
APPLICANT'S NAME	DATE GUIDANCE DOCUMENT ISSUED

With respect to the requirement to submit "generic" data imposed by the FIFRA section 3(C)(2)(B) notice contained in the referenced Guidance Document, I am responding in the following manner:

☐ 1. I will submit data in a timely manner to satisfy the following requirements. If the test procedures I will use deviate from (or are not specified in) the Registration Guidelines or the Protocols contained in the Reports of Expert Groups to the Chemicals Group, OECD Chemicals Testing Programme, I enclose the protocols that I will use:

☐ 2. I have entered into an agreement with one or more other registrants under FIFRA section 3(C)(2)(B)(ii) to satisfy the following data requirements. The tests, and any required protocols, will be submitted to EPA by:

NAME OF OTHER REGISTRANT

☐ 3. I enclose a completed "Certification of Attempt to Enter Into an Agreement with Other Registrants for Development of Data" with respect to the following data requirements:

☐ 4. I request that you amend my registration by deleting the following uses (this option is not available to applicants for new products):

☐ 5. I request voluntary cancellation of the registration of this product. (This option is not available to applicants for new products.)

REGISTRANT'S AUTHORIZED REPRESENTATIVE	SIGNATURE	DATE

EPA Form 8580-1 (10-82)

OMB Approval No. 2070-0057 (Expires 11/30/89)

CERTIFICATION OF ATTEMPT TO ENTER INTO AN AGREEMENT WITH OTHER REGISTRANTS FOR DEVELOPMENT OF DATA

(To qualify, certify ALL four items)

1. I am duly authorized to represent the following firm(s) who are subject to the requirements of a Notice under FIFRA Section 3(c)(2)(B) contained in a Guidance Document to submit data concerning the active ingredient:	**GUIDANCE DOCUMENT DATE** **ACTIVE INGREDIENT**
NAME OF FIRM	**EPA COMPANY NUMBER**

(This firm or group of firms is referred to below as "my firm".)

2. My firm is willing to develop and submit the data as required by that Notice, if necessary. However, my firm would prefer to enter into an agreement with one or more other registrants to develop jointly, or to share in the cost of developing, the following required items or data:

3. My firm has offered in writing to enter into such an agreement. Copies of the offers are attached. That offer was irrevocable and included an offer to be bound by an arbitration decision under FIFRA Section 3(c)(2)(B)(iii) if final agreement on all terms could not be reached otherwise. This offer was made to the following firm(s) on the following date(s):

NAME OF FIRM	**DATE OF OFFER**

However, none of those firm(s) accepted my offer.

4. My firm requests that EPA not suspend the registration(s) of my firm's product(s), if any of the firms named in paragraph (3) above have agreed to submit the data listed in paragraph (2) above in accordance with the Notice. I understand EPA will promptly inform me whether my firm must submit data to avoid suspension of its registration(s) under FIFRA Section 3(c)(2)(B). (This statement does not apply to applicants for new products.) I give EPA permission to disclose this statement upon request.

TYPED NAME	**SIGNATURE**	**DATE**

EPA Form 8580-6 (10-82)

172

PRODUCT SPECIFIC DATA REPORT

EPA Registration No.________________ Guidance Document for__________________________

Date__________________

Registration Guideline No.	Name of Test	Test not required for my product listed above (check below)	I am complying with data requirements by		(For EPA Use Only) Accession Numbers Assigned
			Citing MRID#	Submitting Data (Attached)	
§158.20 PRODUCT CHEMISTRY					
61-1	Identity of ingredients				
61-2	Statement of composition				
61-3	Discussion of formation of ingredients				
62-1	Preliminary analysis				
62-2	Certification of limits				
62-3	Analytical methods for enforcement limits				
63-2	Color				
63-3	Physical state				
63-4	Odor				
63-5	Melting point				
63-6	Boiling point				
63-7	Density, bulk-density, or specific gravity				
63-8	Solubility				
63-9	Vapor pressure				
63-10	Dissociation constant				
63-11	Octanol/water partition coefficient				
63-12	pH				
63-13	Stability				
63-14	Oxidizing/reducing reaction				
63-15	Flammability				
63-16	Explodability				
63-17	Storage stability				
63-18	Viscosity				
63-19	Miscibility				

63-20	Corrosion characteristics				
63-21	Dielectric breakdown voltage				
§158.135 TOXICOLOGY					
81-1	Acute oral LD-50, rat				
81-2	Acute dermal LD-50				
81-3	Acute inhalation, LC-50 rat				
81-4	Primary eye irritation, rabbit				
81-5	Primary dermal irritation				
81-6	Dermal sensitization				

OMB Approval No. 2070-0057
Expiration Date 11/30/89

GENERIC DATA EXEMPTION STATEMENT

EPA Product Registration Number: ______________

Registrant's Name and Address: ____

____

As an authorized representative of the registrant of the product identified above, I certify that:

(1) I have read and am familiar with the terms of the Notice from EPA dated __________ concerning a requirement for submission of generic data on the active ingredient ____________ named under FIFRA Section 3(c)(2)(B).

(2) My firm requests that EPA not suspend the registration of our product, despite our lack of intent to submit the generic data in question, on the grounds that the product contains the active ingredient solely as the result of the incorporation into the product of another product which contains that active ingredient, which is registered under FIFRA Section 3, and which is purchased by us from another producer.

(3) An accurate Confidental Statement of Formula(CSF) for the above-identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the subject active ingredient in my firm's product, or

The CSF dated ________ on file with EPA is complete, current and accurate and contains the information requested on the current CSF Form No. 8570-4. The registered source(s) of the above named active ingredient in my product(s) is/are ____________________ and their registration number(s) is/are ____________.

(4) My firm will apply for an amendment to the registration prior to changing the source of the active ingredient in our product to one that is not registered and purchased.

(5) I understand, and agree on behalf of my firm, that if at any time any portion of this Statement is no longer true, or if my firm fails to comply with the undertakings made in this Statement, my firm's product's registration may be suspended under FIFRA Section 3(c)(2)(B).

(6) I further understand that if my firm is granted a generic data exemption for the product, my firm relies on the efforts of other persons to provide the Agency with the required generic data. If the registrant(s) who have committed to generate and submit the required data fail to take appropriate steps to meet requirements or are no longer in compliance with this Notice's data requirements, the Agency will consider that both they and my firm are not in compliance and will normally initiate proceedings to suspend the registrations of my firm's product(s) and their product(s), unless my firm commits to submit and submits the required data in the specified time frame. I understand that, in such cases, the Agency generally will not grant a time extension for submitting the data.

Registrant's authorized representative: ______________________________
(Signature)

Dated: ________________ ______________________________
(Typed)

EPA Form 8570-27

APPENDIX VI

BIBLIOGRAPHY APPENDICES

NORE: There is no bibliography to this document. A bibliography containing all references cited may be found in the Agency's Position Document 2/3, January 1981, and Position Document 4, July 1984, both available from the Office of Pesticide Programs, EPA, 401 M St., SW., Washington, D.C. 20460.